

MEMORANDUM

October 9, 2009

TO: Planning, Housing, and Economic Development Committee

FROM: Jeff Zyontz, Legislative Attorney 

SUBJECT: Briefing - Zoning Text Amendment 09-08,
Commercial/Residential (CR) Zones - Establishment

Zoning Text Amendment (ZTA) 09-08, sponsored by the District Council at the request of the Planning Board, was introduced on September 22, 2009. A public hearing will be held on October 27, 2009 at 7:30 p.m. The purpose of this briefing is to give Committee members more background for the public hearing. The Committee will not be making any recommendations on October 13.

Since the Planning Board's request for introduction, Planning Staff produced a new memorandum on the economics of the CR zone. Staff has attached that memorandum and prepared the following questions that may be answered in the course of the briefing by the Planning Director and Planning Staff.

- 1) What makes the CR zones superior to the current zones in the Zoning Ordinance?
- 2) Why should the CR zone be adopted in advance of the Zoning Ordinance Re-write?
- 3) Would the economics favor the use of some criteria to increase density more than others?
- 4) How were the standard method density and the criteria that increase density selected?
- 5) Why use zoning for some of the criteria that would increase density instead of the building code?
- 6) If a development was allowed to increase density for criteria that do not relate to the exterior of the building (rental to a locally owned business, free indoor bike parking, showers for bikers), what would be the penalty for violating those criteria after construction?
- 7) How would a density credit be applied to a single building on a larger site when the criterion that increased density applies to the entire site?
- 8) What mechanism would designate a road as a primary retail street?

Summary of ZTA 09-08

ZTA 09-08 would establish a new family of Commercial/Residential (CR) zones. Every CR zone would allow the same land uses and require the same development procedures. Each zone would have a different total maximum floor area ratio (FAR). The maximum allowable FAR in the family of zones would be 8.0.

Within the maximum FAR, each zone would have a maximum residential FAR and a maximum non-residential FAR. Unless the residential FAR maximum or the non-residential maximum equals the total maximum FAR, a mix of uses would be required to achieve the total maximum FAR of the zone. The maximum allowable height of any structure would also vary with each zone; the maximum height would be limited to 300 feet. There are design standards in the zone and references to Planning Board adopted design guidelines. Site plan approval would be required for projects adding more than 10,000 feet of floor area.

CR zones would have a “standard method of development” similar to Central Business District zones; however, a maximum standard method density of .5 FAR is the same for all zones. Structures under the standard method of development would not be allowed to be higher than 40 feet.

The optional method of development would establish 5 categories of public benefit under which a project may achieve the zones’ maximum density:

- 1) Transit proximity
- 2) Connectivity and mobility
- 3) Diversity (affordability, public facilities, and land use)
- 4) Design
- 5) Environment

Within the 5 public benefit categories, 33 different criteria would allow the approval of increased density above the standard method of development. Each criterion allows a range of increased density, expressed as a percentage of the applicant’s requested FAR minus .5 FAR (the standard method of development FAR). The ZTA specifies the circumstances under which a project might be allowed the upper end of the density range within each criterion. It would not be possible to achieve the applicant’s requested optional method of development density by satisfying all of the criteria in a single public benefit category. If a project is not near transit, maximum density will require the use of criteria from 4 different public benefit categories. The Planning Board would have the authority to add ways to increase the density of a project or waive particular requirements of some criteria. The purchase of Building Lot Termination Easements would be required for 12.5 percent of the FAR that exceeds .5 FAR.

A project in the CR zone may include more than 1 building or more than 1 parcel. Some criteria only apply to buildings and not the entire project. A building that satisfies such criteria would be entitled to a density increase in proportion to its size.

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

MCPB
Item #
9/17/09

September 11, 2009

MEMORANDUM

TO: Montgomery County Planning Board

VIA: Glenn Kreger, Acting Chief *GK*
Vision Division

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

SUBJECT: Economic Analysis of Proposed CR Zone in White Flint

Staff Recommendation

- 1) Discuss and provide direction to staff.
- 2) Retain structure of the zone as proposed, including standard method maximum density, standard/optional method dichotomy, transit proximity incentive density, and affordable housing incentive density.
- 3) Direct staff to clarify or simplify the Building Lot Termination (BLT) incentive.

INTRODUCTION

This memo provides summary, synthesis, and analysis of the key findings of two attached reports, both of which were prepared by Partners for Economic Solutions (PES), economic consultants working for the Montgomery County Planning Department. The consultants were tasked with analyzing the economic issues related with the proposed CR zone, which has been recommended in two plans currently before the Council (the White Flint Sector Plan and Gaithersburg West Master Plan), as well as other plans currently before the Planning Board (the Takoma/Langley Crossroads Sector Plan and the Kensington and Vicinity Sector Plan).

The two reports are:

- Attachment 1: *Financial Modeling under Existing and CR Zoning*
- Attachment 2: *Incremental Costs to Achieve Incentive Density under Commercial/Residential Zoning*

Financial Modeling under Existing and CR Zoning first examines the economics of developing in three existing zones: CBD-2, TMX-2, and C-2. Each zone represents a distinct zoning regime, and each of these zones might be appropriate for some of the locations for which the CR zone is currently contemplated. The report then compares the economics of developing in the existing zones to developing in the CR zone.

Incremental Costs to Achieve Incentive Density under Commercial/Residential Zoning examines the economics of each of the potential incentives set forth in the proposed CR zone. For most of those incentives, the report estimates a cost associated with providing the public benefit that buys that increment of density.

This cover memo addresses each attachment in turn, though individual topics are not necessarily addressed in the same order, and in some cases this memorandum synthesizes information from both attachments in order to address a specific point.

FINDINGS

An objective of the CR zone is to facilitate the redevelopment of malls and strip shopping centers. Many of those malls and strip shopping centers in White Flint are currently zoned C-2. The CR zone was developed as an improvement upon existing mixed-use zones (such as the TMX-2 and CBD-2 zones) and as an economically viable alternative to continuation under existing single-use zoning.

The following key findings will be highlighted in the discussion of the zone:

- 1) *Parking reductions under CR zoning result in increased land value at redevelopment.*
- 2) *Land values under the CR Zone standard method compare favorably to land values in other zones at FAR 0.5, but cannot achieve the same land value as can be achieved under the CBD-2 standard method, which has a maximum density of FAR 2.0.*
- 3) *The CR zone would provide site plan review at FAR 0.5 but, as applied in White Flint, would not require costly public benefits until FARs well in excess of the optional method minimum have been reached.*
- 4) *The CR zoning produces higher land values than C-2 zone at levels of density achievable in C-2 which makes the CR zone a good choice for achieving the redevelopment of transit-accessible strip centers currently zoned C-2.*
- 5) *The CR zone produces higher land values than TMX-2 at both the standard method maximum and at FAR 2.0 (2.0 is the optional method maximum under TMX-2).*
- 6) *The CR zone produces comparable land values to the CBD-2 zone at FAR 4.0.*

Taken together, these findings indicate that the CR zone is likely to be an effective tool for achieving the redevelopment of White Flint, provides greater incentive to redevelop transit-served shopping centers than the existing zoning, and is likely to be comparable or superior to other existing mixed-use zones that could be used to implement the Sector Plan vision.

NOTES AND CAVEATS

The following notes and caveats deserve brief mention before beginning:

- Both attached reports examine the economics of the zones in the context of White Flint. The economics of the zones in other sector or master plan areas may be different. This was necessary to narrow the scope of the consultant's work to fit our budget.
- A purpose of the CR zone is to fundamentally change the type of real estate products that are developed in areas proximate to transit. As a result, some of the comparisons are more "apples-to-pears" than "apples-to-apples."

- This memo and the accompanying consultant's reports should be read as describing economic relationships, rather than as reflecting true and accurate costs or values. What is significant is whether A is greater than or less than B, or that C is many times greater than D.
- In estimating the costs of each individual CR zone incentive, a few defied cost estimation, and in other cases it was only possible to estimate the cost of meeting the minimum standard.
- In general, the attached consultant's reports, and this memo, compare alternative scenarios on the basis of "residual land value." Residual land value is the money that is left over to pay for land when development costs and a reasonable rate of return have been subtracted from revenues. In order for an owner of an income-producing property to redevelop, the residual land value must be in excess of the value of the income stream generated by the uses on the property. As between redevelopment alternatives for the property, the alternative which produces the highest residual land value will be preferred.
- Costs and values estimated in the abstract can vary significantly in reality. For example, meeting the requirements for design-related incentive density in the CR zone could present significant additional costs for a medical office building, whereas a trophy-class high-rise office building might meet those same requirements at no additional cost (i.e., no cost above what they would have included in the project anyway).
- This analysis was based on the July 13 draft of the CR zone. Changes to the text of the zone that have occurred since that time may not be reflected in the analysis.

A. Financial modeling under existing and CR zoning

1. Parking reductions under CR zoning result in increased land value at redevelopment.

Reduced parking requirements can result in increased land value for those projects which can take advantage of the opportunity. Holding constant certain variable factors—such as rate of absorption, rents, financing costs—reduction of parking requirements improves land values. The CR zone as proposed would be the first zone in Montgomery County to include parking maximums, and would reduce the minimum required parking ratios for all land uses.

Impact of Reduced Parking (Residual Land Value of Non-Residential Development)							
Zone	Parking Ratio			Above-ground parking		Below-ground parking	
	Above-ground parking	Office	Retail	Residual Land Value		Residual Land Value	
				Dollars	/sq. ft.	Dollars	/sq. ft.
CR 2.5 C 1.5 R 2.0	1.5	2.4	4.9	\$98	\$65	\$70	\$14
CR 2.5 C 1.5 R 2.0	1.5	2.3	4.8	\$102	\$68	\$27	\$18
CR 2.5 C 1.5 R 2.0	1.5	2.2	4.7	\$106	\$71	\$34	\$22
CR 2.5 C 1.5 R 2.0	1.5	2.1	4.6	\$111	\$74	\$41	\$27
CR 2.5 C 1.5 R 2.0	1.5	2.0	4.5	\$115	\$77	\$48	\$32
CR 2.5 C 1.5 R 2.0	1.5	2.0	4.4	\$116	\$78	\$49	\$33
CR 2.5 C 1.5 R 2.0	1.5	2.0	4.3	\$118	\$78	\$52	\$34
CR 2.5 C 1.5 R 2.0	1.5	2.0	4.2	\$119	\$79	\$53	\$36
CR 2.5 C 1.5 R 2.0	1.5	2.0	4.1	\$120	\$80	\$55	\$37
CR 2.5 C 1.5 R 2.0	1.5	2.0	4.0	\$121	\$81	\$57	\$38
CR 2.5 C 1.5 R 2.0	1.5	2.0	3.9	\$122	\$82	\$59	\$39
CR 2.5 C 1.5 R 2.0	1.5	2.0	3.8	\$123	\$82	\$61	\$40
CR 2.5 C 1.5 R 2.0	1.5	2.0	3.7	\$125	\$83	\$63	\$42
CR 2.5 C 1.5 R 2.0	1.5	2.0	3.6	\$126	\$84	\$65	\$43
CR 2.5 C 1.5 R 2.0	1.5	2.0	3.5	\$127	\$85	\$67	\$44
CR 2.5 C 1.5 R 2.0	1.5	1.9	3.4	\$132	\$88	\$74	\$49
CR 2.5 C 1.5 R 2.0	1.5	1.8	3.3	\$136	\$91	\$80	\$54
CR 2.5 C 1.5 R 2.0	1.5	1.7	3.2	\$140	\$94	\$88	\$58
CR 2.5 C 1.5 R 2.0	1.5	1.6	3.1	\$145	\$96	\$94	\$63
CR 2.5 C 1.5 R 2.0	1.5	1.5	3.0	\$149	\$99	\$101	\$67

As the table above illustrates, small reductions in commercial parking ratios can have a significant impact on values, expressed both as value per land or "dirt" square foot, or as value per improved or "FAR" square foot¹. Under Chapter 59-E of the County's zoning code, office development in White Flint would need to provide 2.4 spaces per 1,000 square feet for any development between 800 feet and 1,600 feet from a Metro Station (see top line). Each subsequent line represents a scenario possible under the CR with fewer parking spaces and resulting increases in land value.

For illustrative purposes, the following represents a comparison of the land value under C-2 zoning and the land values under the proposed CR zone.

Impact of Reduced Parking (Residual Land Value of Non-Residential Development)							
Zone	Parking Ratio			Above-ground parking		Below-ground parking	
	Above-ground parking	Office	Retail	Residual Land Value		Residual Land Value	
				Dollars	/sq. ft.	Dollars	/sq. ft.
C-2	Above	1.5	2.4	4.9	\$92	\$61	
CR 2.5 C 1.5 R 2.0	Above	1.5	2.4	4.9	\$98	\$65	
CR 2.5 C 1.5 R 2.0	Below	1.5	1.6	3.1	\$94	\$63	

Redevelopment under the CR zone with reduced parking in underground structures could outperform redevelopment under the C-2 zone with above-ground parking.

¹ This table does not address reductions in residential parking, which are more difficult to achieve. It is much easier to influence the decision about how one gets to work or play destinations than it is to influence whether or not one should own a car at all.

2. *Land values under the CR Zone standard method compare favorably to land values in other zones at FAR 0.5, but cannot achieve the same land value as can be achieved under the CBD-2 standard method, which has a maximum density of FAR 2.0.*

Some zones have both a standard and optional method of development. The maximum density under the standard method varies by zone (e.g. the maximum standard method density in the CR zone and the TMX-2 zone is 0.5, whereas the maximum standard method density in the CBD-2 zone is 2.0). The requirements that apply to all development, including standard method development, also vary by zone.

Comparison of Land Values at Standard Method Density for Condo/Retail Development		
Zone	Standard Method FAR	Residual Land Value (Per Dbl. SF)
CR	0.50	\$89.00
C-2 Mixed Use	1.00	\$123.00
C-2 Mixed Use	1.50	\$129.00
TMX-2	0.50	\$65.00
CBD-2	0.50	\$64.00
CBD-2	1.00	\$123.00
CBD-2	1.50	\$129.00
CBD-2	2.00	\$183.00

The report found that the residual land value at FAR 0.5 in the CR zone compares favorably to the land values under both TMX-2 and CBD-2 at FAR 0.5. Development under the CBD-2 can achieve substantially higher density under the standard method, and can achieve higher land values before moving to optional method of development.

The CBD-2 zone allows standard method density up to FAR 2.0. Both the CBD-2 and C-2 zone are able to achieve higher residual land values before the optional method requirements for site plan and additional public benefits apply.

3. *The CR zone would provide site plan review at FAR 0.5 but, as applied in White Flint, would not require costly public benefits until FARs well in excess of the optional method minimum have been reached.*

Optional method of development in existing zones (CBD-2 and TMX-2) requires project plan and site plan review by the Planning Board. The optional method of development in the CR zone does not include a project plan requirement. Optional method of development in existing zones also requires additional public benefits from the developer. The required public benefits tend to increase the cost of development.

The density above the standard method requires the provision of additional public benefit and additional Planning Board review. As such, it is sometimes said that standard method density is "by right" density and optional method density is "negotiated" density. Developers and property owners within the CBDs have developed a comfort level with this zone over the years, though many were originally uncomfortable with the perceived time and uncertainty associated with negotiated density.

The optional method of development has the potential to provide the community greater control over the design of a development through the site plan review, and also to require that the developer provide public benefits.

Some zones, such as the C-2 zone, have no optional method. In the C-2 zone there are three possible sets of rules under which development can occur, two of which generally do not require site plan. The third is only available to a very narrow subset of properties².

Issues involving the standard/optional method dichotomy include:

- Owners of properties currently zoned C-2, have previously expressed reservations about being rezoned to TMX-2, a change which they perceive to be equivalent to a “downzoning.”
- The cost of optional method density may lead some property owners to decide not to redevelop or to redevelop at standard method only.
- In the C-2 zone, or any other zone permitting moderate density with no optional method, substantial developments can be built without site plan review.

In all CR zones, the standard method maximum density is FAR 0.5. In a CR 4.0 zone, a property within ¼ mile of a Metrorail stop would receive a transit proximity incentive equal to 40% of the total potential incentive density.

- Optional method maximum: 4.0
- Standard method maximum: 0.5
- Total incentive density: $4.0 - 0.5 = 3.5$
- Transit proximity incentive available within ¼ mile from Metrorail: $40\% \times 3.5 = 1.4$
- Standard method density plus transit incentive density: $0.5 + 1.4 = 1.9$

In addition, incentive density is available for providing workforce housing, even in locations currently subject to the workforce housing requirement (i.e. Metro Station Policy Areas). As a result, a property that is zoned CR 4.0 and is located within ¼ mile from Metrorail and within a Metro Station Policy Area would essentially not be subjected to additional optional method costs for any development improved to an FAR of 2.6 or below.

- Required workforce housing, as percentage of market rate units: 10%
- Total incentive density: $4.0 - 0.5 = 3.5$
- Incentive density for workforce housing: $2 \times 10\% = 20\%$
- Affordable housing incentive density: $20\% \times 3.5 = 0.7$
- Standard method density plus transit incentive plus affordable housing incentive: $0.5 + 1.4 + 0.7 = 2.6$

² See 59-C-4.358.2 (Special Development Procedure for Transit Oriented Mixed Use). The property must be located within a Metro Station Policy Area that is not a Central Business District. The property must be zoned C-2 and must not be recommended for TS-M, however the property must abut another property that is recommended for TS-M. The Special Development Procedure requires that at least 60% of the development must be for residential use and the ground floor must be for commercial use.

There is an additional incentive that may be entirely determined by characteristics specific to the land, rather than to the new development itself. The Community Connectivity incentive density is available to properties that are in proximity to a number of pedestrian accessible retail uses, many of which must be small to mid-size retailers. The total incentive density available in the Community Connectivity category is 10% to 20%. If the location of the property, perhaps in combination with elements of the planned development, would qualify it for the Community Connectivity incentive density, then it is conceivable that the development could achieve an FAR of 2.95 or even 3.30 without incurring any costs associated with required public benefits which were not otherwise required.³

Comparing Zones: FAR at which site plan review and additional public benefits are required (CR 4.0, located within 1/4 mile of Metrorail)							
	CR 4.0	C-2	TMX-2	CBD-2	CBD-1	CR 4.0	CR 4.0
FAR above which site plan or equivalent occurs	0.50	2.00	0.50	1.50	2.50	0.00	
Maximum FAR under optional method of development	4.00	4.00	2.00	N/A	N/A	2.50	
Maximum FAR without imposition of additional public benefits	w/o transit proximity	0.50	2.00	0.50	1.50	2.50	N/A
	w/ transit proximity (assume & workforce housing	1.90	2.00	0.50	1.50	2.50	N/A
	& workforce housing	2.60	2.00	0.50	1.50	2.50	N/A
	& community connectivity	2.95-3.30	2.00	0.50	1.50	2.50	N/A

For a property located within 1/4 mile of a Metrorail station and within an established Metro Station Policy Area, the CR zone compares favorably to the C-2 zone, the TMX-2 zone, and the CBD-2 zone. The zone provides site plan review at a low level of density, but does not require costly public benefits until much higher levels of density are achieved. In this example, development under the CR zone could achieve density of FAR 2.6 to 3.3 without incurring costs in addition to the land premium associated with the location, the provision of MPDU and workforce housing as already required under County law, and meeting the minimum requirements of the CR zone.

4. *The CR zoning produces higher land values than C-2 zone at levels of density achievable in C-2 which makes the CR zone a good choice for achieving the redevelopment of transit-accessible strip centers currently zoned C-2.*

A primary objective of the CR zone is to facilitate the redevelopment of existing suburban commercial shopping centers. Such shopping centers represent a significant opportunity for the County because of their locations, transportation access, and significant supply of serviced land currently dedicated to surface parking. Many of these shopping centers are currently zoned either C-1 or C-2 (with C-2 being the more intense of the two zones). As such, in comparing the CR zone to existing zones, C-2 is a logical starting place.

Unlike some newer zones, the C-2 zone does not provide for an optional method of development. As described above, there are currently 3 alternative sets of rules nested within the zone, one of which applies only to a small subset of properties. The two remaining alternatives are:

- 100% non-residential development, maximum FAR 1.5, height limited to 42', 75% site coverage, generally no site plan.

³ Providing the affordable housing required under the County's existing inclusionary zoning laws may still have a cost, and those requirements are not altered by the CR zone. However, there are no additional or new costs associated with affordable housing under the CR zone.

- Mixed use development, maximum total FAR of 2.5 where non-residential FAR does not exceed 1.0 and ground floor is all commercial, generally no site plan.

The CR and the C-2 zone are so different that they do not lend themselves to easy apples-to-apples comparison, and because it was not possible to model every possibility, it is not possible to compare the zones at every level of density.

Residual Land Value Per Dirt Square Foot, CR vs. C-2, Condo/Retail, Selected Densities			
0.50		\$89.00	
1.00		-	\$123.00
1.25	Transit Access btwn 1/4 and 1/2 mile	\$150.00	\$123.00-\$129.00
1.50	↓↓	-	\$129.00
1.75	Community Connectivity	\$206.00	-
2.00	↓↓	-	-
2.25	Affordable Housing (WFHU)	\$260.00	-
2.50	Care Center	\$268.00	-
2.92	LEED Gold	\$249.00	NA

At FAR 1.50, the C-2 zone produces a residual land value of \$129 per square foot of land. At that same FAR, the CR zone produces a residual land value of between \$150 and \$206.⁴

5. *The CR zone produces higher land values than TMX-2 at both the standard method maximum and at FAR 2.0 (2.0 is the optional method maximum under TMX-2).*

The TMX-2 zone is similar to the CBD family of zones in that it includes both a standard and optional method of development. However, the TMX-2 is intended to be applied in locations which are transit served but which are not in a CBD. As such, the zone would be appropriate in many locations which might also be appropriate for a CR zone.

The TMX-2 zone requires site plan review above the standard method maximum of FAR 0.5, providing Planning Board site plan review at the same level of density as does the CR. In the TMX-2 zone, development under the optional method is required to provide public benefits, to wit, a portion of the optional method density must be purchased with Building Lot Terminations.⁵

Residual Land Value Per Dirt Square Foot, CR vs. TMX-2, Condo/Retail, Selected Densities			
0.50		\$89.00	\$65.00
1.00		-	-
1.25	Transit Access btwn 1/4 and 1/2 mile	\$150.00	-
1.50	↓↓	-	-
1.75	Community Connectivity	\$206.00	-
2.00	↓↓	-	\$176.00
2.25	Affordable Housing (WFHU)	\$260.00	NA
2.50	Care Center	\$268.00	NA
2.92	LEED Gold	\$249.00	NA

⁴ The C-2 Special Development Procedure for Transit-Oriented Mixed Use, which is available for a small subset of properties, produces a residual land value of \$223 per dirt square foot at FAR 2.0 in a condo/retail mix.

⁵ The actual economics of developing in the TMX-2 zone are still unknown, given the still unresolved issue of Executive Regulations setting prices and establishing procedures for the transfer of Building Lot Terminations and payments to the Agricultural Land Preservation Fund.

Based on the results of the analysis, the CR zone produces higher land value at the standard method maximum (\$89 per square foot of land as compared to \$65 per square foot of land). The CR zone also produces higher land value in the optional method. At FAR 2.0 (the optional method maximum in the zone), the TMX-2 produces a residual land value of \$176 per dirt square foot, whereas the CR produces a land value of between \$206 and \$260 per dirt square foot.

6. *The CR zone produces comparable land values to the CBD-2 zone at FAR 4.0.*

The CBD-2 and other CBD zones are used in the County's four Central Business Districts: Friendship Heights, Bethesda, Silver Spring, and Wheaton. The CBD-2 zone has a standard method maximum density of FAR 2.0. The optional method maximum in the zone is FAR 4.0. Development at the optional method requires site plan and public use space equal to at least 20% of the gross site.

The existing CBD zones allow for a range of density options, some of which are most appropriate for low/transitional density. The CBD-2 is among the CBD zones that could be appropriate for portions of the White Flint area.

The comparison with CBD-2 is better illustrated by using a CR zone with a higher optional method ceiling (CR 4.0 C 3.5 R3.5 H300). Because condos generate the highest land values, the comparison is again between condos above retail under both zones.

In both the CR 4.0 and CBD-2, the maximum optional method density is FAR 4.00. However, in the CBD zones the maximum optional method FAR can be exceeded for affordable housing bonus density as provided in Chapter 25A and 25B. In the CR zone, maximum FAR cannot be exceeded for affordable housing; rather, the provision of either (a) any workforce housing, or (b) MPDU above the 12.5% required under Chapter 25A, can be converted into incentive density that gets the developer closer to the optional method maximum density limit. As such, though the scenarios modeled in each zone had a standard method maximum of FAR 4.00, the CR zone development built only to FAR 3.90 while the CBD-2 development built to FAR 4.35.

Residual Land Value Per Dirt Square Foot, CR vs. CBD-2, Condo/Retail		
3.90/4.00	\$286.00	-
4.35/4.00	-	\$294.00

At this level of density, the CR zone produces virtually an equal land value to the CBD-2 zone.

B. Incremental costs to achieve incentive density in the CR zone

The proposed Commercial/Residential zoning amendment is intended to create zones which are defined as combinations of the following factors: maximum total floor area ratio (FAR), maximum non-residential FAR, maximum residential FAR, and maximum building height. Among the intents of the zone are facilitating mixed-use redevelopment of single-use areas and surface parking lots, reducing automobile dependency, and encouraging appropriate balance between jobs and housing.

Two methods of development are possible in the CR zone: standard method and optional method. Certain requirements apply to all development under either method. By providing a combination of public benefits selected from the menu of incentive density opportunities, a developer choosing the optional method of development can achieve greater density than would be possible under the standard method, up to the maximum FAR in that specific CR zone.

The public benefits which comprise the universe of incentive density opportunities are generally divided into four categories: connectivity, design, diversity, and environment. In addition to those four categories, incentive density can be granted for transit proximity and for purchasing building lot terminations (BLTs). The proposed CR zone would limit the amount of incentive density that could be granted out of each category⁶, thereby ensuring that any developer seeking the maximum FAR under the optional method would provide public benefits out of more than one category.

A range of incentive density can be granted by the Planning Board in exchange for the public benefits provided by the development. Many of the public benefits have quantifiable or objective standards at both the minimum and maximum; other public benefits have standards that are quantifiable or objective only at the minimum.

Comparing Costs of Incentive Density Opportunities

The costs of providing the public benefits for which incentive density can be awarded can vary significantly; some may cost less than \$0.25 per square foot of incentive density, whereas others may cost in excess of \$100 per square foot of incentive density.

For details about the assumptions and methods used in estimating the costs of each incentive density opportunity/public benefit, see Attachment 2.

⁶ The Planning Board may grant no more than 30% of the total incentive density for the connectivity, design, diversity or environment incentive categories. Up to 50% of the total incentive density can be granted for both transit proximity and for purchasing BLTs.

Comparing Costs of Incentive Density Opportunities/Public Benefits							
	Incentive Density		Cost per Incentive Sq. Ft.		Cost per FAR Sq. Ft.		
	Low	High	Low	High	4.0 FAR	3.0 FAR	2.5 FAR
Transit proximity							
Adjacent or confronting transit access	25%	50%					
Transit access within 1/4 mile	20%	40%					
Transit access between 1/4 and 1/2 mile	15%	30%					
Transit access between 1/2 and 1 mile	10%	20%					
Connectivity and mobility							
Community connectivity	10%	20%					
Community garden	5%	10%	\$0.10	\$0.26	\$0.02	\$0.02	\$0.02
Parking at the minimum	10%	20%					
Pedestrian through-block connection (500 ft)	5%	10%	\$6.03		\$0.15	\$0.20	\$0.24
Public parking	20%	30%		\$24.49	\$3.67	\$5.89	\$9.38
Transit access improvement	10%	20%					
Diversity							
Adaptive buildings	15%	30%	\$79.17		\$11.88	\$11.88	\$11.88
MPDU increase of 1% (apartments)	10%	20%		-\$27.04			-\$2.25
MPDU increase of 1% (condos)	10%	20%		-\$79.07			-\$6.59
Workforce housing increase of 1% (apartments)	20%	30%		-\$9.89			-\$0.18
Workforce housing increase of 1% (condos)	20%	30%		-\$35.35			-\$0.63
Care center (2,000 sf at \$10 triple net psf)	10%	20%	\$34.91				\$2.89
Community facility (2,000 sf at \$0 rent)	10%	20%	\$43.59				\$3.60
Local retail preservation	10%	20%					
Unit size and mix	5%	10%	-\$44.26	-\$29.50			
Design							
Floor plate size	10%	20%	\$25.00		\$2.00	\$2.00	\$2.00
Historic resource protection	10%	20%					
Parking below grade vs. above grade w/ liner							
Office/Retail	10%	20%		\$236.00	\$32.00	\$40.00	\$47.00
Residential Retail	10%	20%		\$140.00	\$22.00	\$25.00	\$28.00
Podium/tower setback	5%	10%	\$15.00	\$15.00	\$0.75	\$0.75	\$0.75
Public art @ 1% to 4% of hard costs	5%	20%	\$27.50	\$27.50	\$1.10	\$1.10	\$1.10
Public plaza/ open space (2,500 sf)	5%	10%	\$11.48		\$0.29	\$0.38	\$0.46
Streetscape off-site (18% of net lot)	5%	10%	\$60.48	\$60.48	\$1.51	\$1.73	\$2.42
Wow factor	10%	20%					
Environment							
Bio-retention and stormwater recharge (25% runoff)	5%	10%	\$66.60		\$1.67	\$2.22	\$2.66
Bio-retention and stormwater recharge (50% runoff)	5%	10%		\$54.00	\$2.70	\$3.60	\$4.32
Conveyed parkland (30% of gross lot area)	10%	20%	\$37.50	\$37.50	\$3.75	\$5.00	\$6.00
Dark skies (5 fixtures per 1,000 sf)	5%	10%		\$0.23	\$0.01	\$0.02	\$0.02
Energy efficiency and generation (6-17 kW)	10%	20%	\$2.20	\$1.84	\$0.39	\$0.37	\$0.37
Green wall (100' wall, 3 stories)	5%	10%	\$2.64		\$0.07	\$0.09	\$0.11
LEED Silver	10%		\$20.00		\$1.60	\$1.60	\$1.60
LEED Gold	20%		\$79.88		\$12.78	\$12.78	\$12.78
LEED Platinum		30%		\$133.17	\$31.96	\$31.96	\$31.96
Rainwater reuse (25% runoff)	5%	10%	\$43.20		\$1.08	\$1.44	\$1.73
Rainwater reuse (50% runoff)	5%	10%		\$32.63	\$1.63	\$2.18	\$2.61
TDR (10 TDRs for 20 units or 25,000 sf)	10%	30%	\$9.18	\$9.18	\$0.46	\$0.61	\$0.73
Tree canopy (50% coverage)	10%	20%	\$0.03	\$0.03	\$0.004	\$0.006	\$0.007
Vegetated area (5,000 sf)	5%	10%	\$2.63		\$0.07	\$0.09	\$0.11
Vegetated roof-60% of roof area (52,300 sf)	10%	20%	\$9.24	\$8.40	\$0.84	\$1.12	\$1.34
Building Lot Terminations							
BLTs (3.12 BLTs)		50%		\$5.73	\$2.48	\$2.38	\$2.29

As the table above illustrates, the cost of each square foot of incentive density associated with the incentive opportunities/public benefits varies significantly. In fact, some of the public benefits actually have a negative cost, i.e. economic benefits accrue to the project as a consequence of providing certain public benefits. In the case of the transit proximity incentive density, the cost of that incentive is internal to the land value, i.e. land closer to transit is presumably more expensive than the same land would be if it were farther from transit.

Transit proximity incentive density

Transit proximity incentive density is available to properties that are in locations where the County currently wants to encourage density. As proposed, greater incentive density is awarded based on proximity to transit, and a premium is awarded for proximity to Metrorail over other forms of transit.

The transit proximity incentive does not lend itself to estimating the associated marginal costs. Property owners pay more for land that is close to transit. Once the land is paid for, there is no additional or marginal cost associated with this incentive density.

Connectivity and Mobility

A development can achieve up to 30% of the total incentive density from the Connectivity and Mobility category.

Comparing Costs of Incentive Density Opportunities/Public Benefits							
	Incentive Density		Cost per Incentive Sq. Ft.		Cost per FAR Sq. Ft.		
	Low	High	Low	High	4.0 FAR	3.0 FAR	2.5 FAR
Connectivity and mobility							
Community connectivity	10%	20%					
Community garden	5%	10%	\$0.10	\$0.26	\$0.02	\$0.02	\$0.02
Parking at the minimum	10%	20%					
Pedestrian through-block connection	5%	10%	\$6.03		\$0.15	\$0.20	\$0.24
Public parking	20%	30%		\$24.49	\$3.57	\$5.89	\$9.38
Transit access improvement	10%	20%					

Community connectivity is largely a function of location and thus the cost is internal to the cost of the land. In White Flint, many properties are within ½ mile from at least ten different existing or proposed retail uses, but meeting the direct pedestrian access requirement (however defined) may be a challenge for some. Between 10% and 20% of total incentive density can be awarded for community connectivity. Many properties in infill locations may qualify for this incentive.

Within the Connectivity and Mobility category, **community gardens** appear likely to be most appealing to developers. To the extent that this benefit can be provided on land with no/low opportunity cost or on the roof, meeting the requirements can be done at very little cost per incentive density square foot. The hard costs are more expensive when the garden is on the roof, but on the roof the gardens require none of the gross lot area.

Parking at the minimum is an incentive which is distinct from the reduced parking requirements in the zone. The CR zone has both a minimum and maximum requirement for parking. Projects which park at the minimum are eligible for incentive density. This incentive will be infrequently used in the near-term. While the reduced parking requirements in the zone provide a very significant economic benefit to development in the CR zone where financing and the market will support reduced parking, parking at the minimum will be difficult to achieve for the great majority of projects. This incentive will likely be more often utilized when these areas transform and mature. **Public parking** is subject to the same problem—development would need to park at the minimum in order to qualify for this incentive.

Diversity

A development can achieve up to 30% of the total incentive density from the Diversity category.

Consistent with this County’s longstanding emphasis on housing affordability, the incentive density available for providing workforce housing and/or bonus MPDU are among the most cost effective bonuses available. Developments in White Flint which contain residential uses are likely to look to the diversity category for a portion of their total incentive density. Non-residential developments are less likely to favor the category, but there are still opportunities for non-residential development to achieve incentive density from this category.

Comparing Costs of Incentive Density Opportunities/Public Benefits							
	Incentive Density		Cost per Incentive Sq. Ft.		Cost per FAR Sq. Ft.		
	Low	High	Low	High	4.0 FAR	3.0 FAR	2.5 FAR
Diversity							
Adaptive buildings	15%	30%	\$79.17		\$11.88	\$11.88	\$11.88
MPDU increase of 1% (apartments)	10%	20%		-\$27.04			-\$2.25
MPDU increase of 1% (condos)	10%	20%		-\$79.07			-\$6.59
Workforce housing increase of 1% (apartments)	20%	30%		-\$9.89			-\$0.18
Workforce housing increase of 1% (condos)	20%	30%		-\$35.35			-\$0.63
Care center (2,000 sf at \$10 triple net psf)	10%	20%	\$34.91				\$2.89
Community facility (2,000 sf at \$0 rent)	10%	20%	\$43.59				\$3.60
Local retail preservation	10%	20%					
Unit size and mix	5%	10%	-\$44.26	-\$29.50			

Affordable housing provides incentive density for projects that include workforce housing units. The CR zone would provide sufficient density bonus that some developers not located in a Metro Station Policy Area (and thus not required to provide workforce housing) may choose to provide workforce housing. Making the incentive available to properties already required to provide workforce housing under Chapter 25B could have the effect of pushing additional development from outside of Metro Station Policy Areas into the Metro Station Policy Areas.

Unit mix and size provides incentive density for projects which include a range of unit types including both efficiencies and 3-bedroom units. Ultimately, no project will include units that the market will not absorb. This is true even where providing the units qualifies the project for incentive density. Efficiencies are typically not part of the mix in condominium projects in Montgomery County. Rental projects which identify a market for a range of unit types in a multi-family project may choose to take advantage of this incentive.

Community facilities and care centers can be integrated into either residential or non-residential projects. Because the affordable housing category will not be utilized by non-residential development, non-residential projects in need of density out of this category will likely look to these two possible bonuses. **Local retail preservation** is obviously another incentive that could be utilized by non-residential development.

Design

A development can achieve up to 30% of the total incentive density from the Design category. In general, the incentives associated with the Design category are more expensive than those in other categories. However, many developments are already including these elements in their projects. As such, an incentive that might increase the cost significantly for some projects, might add no cost to other projects. This is particularly true for projects such as trophy-class or Class A office buildings or luxury condominium projects.

Comparing Costs of Incentive Density Opportunities/Public Benefits							
	Incentive Density		Cost per Incentive Sq. Ft.		Cost per FAR Sq. Ft.		
	Low	High	Low	High	4.0 FAR	3.0 FAR	2.5 FAR
Design							
Floor plate size	10%	20%	\$25.00		\$2.00	\$2.00	\$2.00
Historic resource protection	10%	20%					
Parking below grade vs. above grade w/ liner							
Office/Retail	10%	20%		\$236.00	\$32.00	\$40.00	\$47.00
Residential Retail	10%	20%		\$140.00	\$22.00	\$25.00	\$28.00
Podium/tower setback	5%	10%	\$15.00	\$15.00	\$0.75	\$0.75	\$0.75
Public art @ 1% to 4% of hard costs	5%	20%	\$27.50	\$27.50	\$1.10	\$1.10	\$1.10
Public plaza/ open space (2,500 sf)	5%	10%	\$11.48		\$0.29	\$0.38	\$0.46
Streetscape off-site (18% of net lot)	5%	10%	\$60.48	\$60.48	\$1.51	\$1.73	\$2.42
Wow factor	10%	20%					

Floor plate size and **podium/tower setback** are public benefits that will generally be provided only where height limits permit tall buildings. Regardless of the relative cost-effectiveness of these incentive density opportunities, they will only be used in close proximity to Metrorail or other locations where the general character is amenable to taller buildings.

Public plaza/open space, like other categories involving land, presents challenges in estimating the cost. Using additional land beyond what is required for the public use space and for the building footprint, parking, access, and dedication can add significant opportunity costs to the development.

Wow factor is a category which does not contain objective standards and is thus impossible to estimate associated costs. While “wow factor” might be a very expensive public benefit for many developments, trophy class office buildings or luxury condominium residential buildings may be able to provide this level of design excellence at little or even no incremental cost.

Environment

A development can achieve up to 30% of the total incentive density from the Environment category.

There is a great deal of cost disparity in the environment, which is to say that some of these incentives are very cheap, while others are very expensive. However, the two most expensive of these incentives are LEED Gold and LEED Platinum. Many developers are already choosing to pursue LEED Gold and LEED Platinum for other reasons, including reduced operating costs, tax credits, tenant demand and rent premiums, marketing and public relations considerations, and shareholder interest in green investment.

Comparing Costs of Incentive Density Opportunities/Public Benefits							
	Incentive Density		Cost per Incentive Sq. Ft.		Cost per FAR Sq. Ft.		
	Low	High	Low	High	4.0 FAR	3.0 FAR	2.5 FAR
Environment							
Bio-retention and stormwater recharge (25% runoff)	5%	10%	\$66.60		\$1.67	\$2.22	\$2.66
Bio-retention and stormwater recharge (50% runoff)	5%	10%		\$54.00	\$2.70	\$3.60	\$4.32
Conveyed parkland (30% of gross lot area)	10%	20%	\$37.50	\$37.50	\$3.75	\$5.00	\$6.00
Dark skies (5 fixtures per 1,000 sf)	5%	10%		\$0.23	\$0.01	\$0.02	\$0.02
Energy efficiency and generation (6-17 kW)	10%	20%	\$2.20	\$1.84	\$0.39	\$0.37	\$0.37
Green wall (100' wall, 3 stories)	5%	10%	\$2.64		\$0.07	\$0.09	\$0.11
LEED Silver	10%		\$20.00		\$1.60	\$1.60	\$1.60
LEED Gold	20%		\$79.88		\$12.78	\$12.78	\$12.78
LEED Platinum		30%		\$133.17	\$31.96	\$31.96	\$31.96
Rainwater reuse (25% runoff)	5%	10%	\$43.20		\$1.08	\$1.44	\$1.73
Rainwater reuse (50% runoff)	5%	10%		\$32.63	\$1.63	\$2.18	\$2.61
TDR (10 TDRs for 20 units or 25,000 sf)	10%	30%	\$9.18	\$9.18	\$0.46	\$0.61	\$0.73
Tree canopy (50% coverage)	10%	20%	\$0.03	\$0.03	\$0.004	\$0.006	\$0.007
Vegetated area (5,000 sf)	5%	10%	\$2.63		\$0.07	\$0.09	\$0.11
Vegetated roof-60% of roof area (52,300 sf)	10%	20%	\$9.24	\$8.40	\$0.84	\$1.12	\$1.34

Dark skies compliance adds negligible cost to “smart” buildings with centralized computer controls. This is among the “cheapest” incentive density opportunities available. However, dark skies compliance requires that tenants feel comfortable with reduced exterior lighting. As such, this incentive density opportunity is more likely to be utilized in office developments than in residential developments.

LEED Silver/Gold/Platinum incentive density opportunities range from moderate cost to very expensive. However, LEED certification or equivalent is already required of many buildings under the County’s green building law, and many developers are already targeting LEED Silver or higher both for marketing reasons as well as to take advantage of tax credits and reduced long-term operational expenses. In addition, many of the other incentive density opportunities in the CR zone will contribute to the LEED rating of the project, meaning that the cost of this incentive density opportunity will have been partially or wholly internalized in the cost of other categories.

Building Lot Terminations (BLTs)

Purchase of BLTs can result in total incentive density of up to 50%. As described in greater detail below, it is not entirely clear how to interpret this provision. One advantage that the BLT requirement has over many of the incentives in other categories is that it requires no architecture or engineering—it is pay-and-go density.

Comparing Costs of Incentive Density Opportunities/Public Benefits							
	Incentive Density		Cost per Incentive Sq. Ft.		Cost per FAR Sq. Ft.		
	Low	High	Low	High	4.0 FAR	3.0 FAR	2.5 FAR
Building Lot Terminations							
BLTs		50%		\$5.73	\$2.48	\$2.38	\$2.29

Building lot terminations prove difficult to understand, even for quantitatively-inclined individuals. This problem stems from the fact that there are multiple steps involved in the process. The following is a summary of the issues in a logical order rather than in the order in which the issues appear in the zone:

- The conversion rates in the CR zone should be the same as in the TMX zone. In the TMX zone one BLT is required for every 7,500 square feet of non-residential floor area and one for every 9,000 square feet of residential floor area. While the July 13 draft of the CR zone upon which this analysis is based is correct in that regard, subsequent drafts have not been consistent.
- As written, the BLT incentive includes multiple calculations. Only 12.5% of total incentive density is subject to the requirement to purchase BLT. To do so for 12.5% of total incentive density, at the conversion ratios stated above, buys up to 50% of the incentive density available. It should be possible to simplify or collapse these calculations and/or to add an example that better illustrates the intent of the zone and reduces confusion.
- The zone states that the maximum incentive density increase is 50%, but does not establish a minimum or describe any standard upon which less than the maximum might be granted. If the intent is that a landowner purchasing BLTs for 12.5% of incentive density can be awarded 50% of the potential incentive density, then the zone should either define a minimum standard or make clear that the only possibility is that the landowner purchase BLTs for 12.5% of incentive density and that the landowner will receive in exchange 50% of the incentive density.

ATTACHMENT 1

Memorandum

To: Jacob Sesker
Montgomery County Planning Department

From: Anita Morrison
Abigail Ferretti
Partners for Economic Solutions

Leland Edgecombe
Wilfred Lewis
The Edgecombe Group

Subject: Financial Modeling Under Existing and CR Zoning

Date: August 17, 2009

This analysis assessed the economic consequences of development under a range of zoning, Floor Area Ratios (FARs) and parking solutions. Each financial model is a static pro forma that compares the total costs of development with the investment justified by the potential returns from leasing or condo sales. The pro formas solve for "Residual Land Value", which represents the amount a developer could afford to pay for the project's land and still make an acceptable return on investment.

Development Under Existing Zoning

The first set of analyses deals with development under the existing zoning categories most appropriate to White Flint:

- CBD Standard and Optional Method;
- TMX-2 Standard and Optional Method;
- C2 Standard Method and Mixed-Use; and
- C2 TOMU.

They test the potential for development on a 2.5-acre site in the White Flint area for four land use combinations:

- office and retail space;
- residential apartments and retail space;
- residential condominiums and retail space; and
- retail only.

Table 1 on the following page summarizes the provisions of the different zoning regiments. Table 2 on page 3 describes the various scenarios and differences imposed by those zoning requirements. Appendix A summarizes the basic model inputs for different land uses. Appendix B provides the pro formas by land use.

	CBD 2 Standard	CBD 2 Optional	TMX - 2 Standard	TMX - 2 Optional	C2 Standard Commercial	C2 Standard Mixed Use	C2 Standard TOMU
Commercial Development							
Maximum FAR	2.0	4.0	0.5	2.0	1.5	1.0	0.8
Maximum Height	60	143	42	200	42	75	180
Maximum Coverage	75%	75%	75%	90%	NA	75%	75%
Minimum Lot Area	-	18,000	-	18,000	-	-	40,000
Frontage Improvements	No	Yes	Yes	Yes	No	No	No
Building Lot Termination (BLT)	No	No	No	Yes	No	No	No
Public Use Space (% of site)	10%	20%	10%	20%	10%	10%	10%
Off-Site Parkland/ Public ROW Dedication	No	No	No	No	No	No	25%
Residential Development							
Maximum FAR	2.0	4.0	0.5	2.0	NA	2.0	1.8
Maximum Height	60	143	42	200	NA	75	180
Maximum Coverage	75%	80%	80%	80%	NA	75%	75%
Minimum Lot Area	-	18,000	-	18,000	NA	NA	40,000
Frontage Improvements	No	Yes	Yes	Yes	NA	No	No
Building Lot Termination (BLT)	No	No	No	Yes	NA	No	No
Public Use Space (% of site)	10%	20%	10%	20%	NA	10%	10%
Off-Site Parkland/ Public ROW Dedication	No	No	No	No	NA	No	25%

Sources: Montgomery County Zoning Code; Partners for Economic Solutions, 2009.

Table 2: Development Scenarios for Modeling

	CBD 2		TMX - 2		C2		C2	
	Standard	Optional	Standard	Optional	Standard Commercial	Standard Mixed Use	Standard TOMU	
Site Size (in acres)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Distance to Metro	1,200 feet	1,200 feet	1,200 feet	1,200 feet	1,200 feet	1,200 feet	1,200 feet	1,200 feet
Office/Retail Development								
FAR	0.5-2.0	4.0	0.5	1.0, 1.5, 2.0	1.5	NA	NA	NA
First-Floor Retail @ 0.4 FAR	0.4 FAR	0.4 FAR	0.2 FAR	0.4 FAR	0.4 FAR	NA	NA	NA
Office for Balance of Space	Balance	Balance	Balance	Balance	Balance	NA	NA	NA
Structure Type	Stick-Built	High-Rise	Stick-Built	Stick-Built	Stick-Built	NA	NA	NA
Parking Type (1)	Above	Above, Below	Surface	Above	Above	NA	NA	NA
Parking Ratio per 1,000 s.f. Retail (2)	5.75, 9.0	4.9	9.00	4.9	4.9	NA	NA	NA
Parking Ratio per 1,000 s.f. Office	2.4	2.4	2.4	2.4	2.4	NA	NA	NA
Public Use Space (in s.f.)	10%	20%	10%	20%	10%	NA	NA	NA
Residential/Retail Development								
FAR	0.5-2.0	4.0	0.5	1.0, 1.5, 2.0	NA	1.0, 1.5	2.0	2.0
First-Floor Retail @ 0.4 FAR	0.4 FAR	0.4 FAR	0.4 FAR	0.4 FAR	NA	0.4 FAR	0.4 FAR	0.4 FAR
Residential for Balance of Space	Balance	Balance	Balance	Balance	NA	Balance	Balance	Balance
MPDUs (3)	12.5%	12.5%	12.5%	12.5%	NA	12.5%	12.5%	12.5%
Workforce Hg Units (% of market) (4)	10.0%	10.0%	10.0%	10.0%	NA	10.0%	10.0%	10.0%
Structure Type	Stick-Built	High-Rise	Stick-Built	Stick-Built	NA	Stick-Built	Stick-Built	Stick-Built
Parking Type (1)	Surface, Above	Above, Below	Surface	Above	NA	Above	Above	Above
Parking Ratio per 1,000 s.f. Retail (2)	9.0	9.0	9.0	9.0	NA	9.0	9.0	9.0
Parking Ratio - Average per Unit (5)	1.20	1.20	1.00	1.00	NA	1.20	1.20	1.20
Public Use Space (in s.f.)	10%	20%	10%	20%	NA	10%	10%	10%
Off-Site Parkland, Right-of-Way Dedication	NA	NA	NA	NA	NA	NA	25%	25%
Residential/Office Development								
FAR	0.5-2.0	4.0	0.5	1.0, 1.5, 2.0	NA	1.0, 1.5	2.0	2.0
First-Floor Office @ 0.6 FAR	0.6 FAR	0.6 FAR	0.6 FAR	0.6 FAR	NA	0.6 FAR	0.6 FAR	0.6 FAR
Residential for Balance of Space	Balance	Balance	Balance	Balance	NA	Balance	Balance	Balance
MPDUs	12.5%	12.5%	12.5%	12.5%	NA	12.5%	12.5%	12.5%
Workforce Housing Units	10.0%	10.0%	10.0%	10.0%	NA	10.0%	10.0%	10.0%
Structure Type	Stick-Built	High-Rise	Stick-Built	Stick-Built	NA	Stick-Built	Stick-Built	Stick-Built
Parking Type (1)	Surface, Above	Above, Below	Surface	Above	NA	Above	Above	Above
Parking Ratio per 1,000 s.f. Office	2.4	2.4	2.4	2.4	NA	2.4	2.4	2.4
Parking Ratio - Average per Unit (5)	1.20	1.20	1.00	1.00	NA	1.20	1.20	1.20
Public Use Space (in s.f.)	10%	20%	10%	20%	NA	10%	10%	10%
Off-Site Parkland, Right-of-Way Dedication	NA	NA	NA	NA	NA	NA	25%	25%
Retail Development								
FAR	0.35		0.35		0.35			
Retail Square Feet	All		All		All			
Structure Type	Stick-Built		Stick-Built		Stick-Built			
Parking Type (1)	Surface		Surface		Surface			
Parking Ratio per 1,000 s.f. Retail (2)	9.0		9.0		9.0			
Public Use Space (in s.f.)	10%		10%		10%			

Notes: (1) Surface parking up to 0.5 FAR; tuck-under parking 0.5 to 1.0 FAR; above-ground structure 1.0 FAR and above.
 (2) General retail at 8.0 spaces per 1,000 square feet and restaurants at 25.0 spaces per 1,000 square feet. Assumes 20 percent restaurant and 80 percent general retail. Adjusted for shared use.
 (3) MPDUs are included at 12.5 percent of the base number of housing units before consideration of workforce housing units. MPDUs are 10 percent smaller than market-rate units.
 (4) Workforce Housing Units are included at 10.0 percent of the number of market-rate housing units. Zoning allows additional FAR and height to accommodate WPHUs. WPHUs are 10 percent smaller than market-rate units.
 (5) Assumes 35 percent one-bedroom units and 65 percent two-bedroom units.
 Source: Partners for Economic Solutions, 2009.

Resulting Land Values

Table 3 summarizes the residual land values resulting from each scenario and zoning category. The values are expressed both in terms of value per square foot of land and value per FAR square foot. They are impacted by several key factors:

- Construction Type – Low-rise development of five stories or less can be “stick-built” construction at a significantly lower cost than high-rise construction, which requires different techniques and materials as well as higher labor costs.
- Parking – The type of parking has substantial cost implications. Surface parking can be developed for as little as \$2,700 per space while construction costs for parking in above-ground structures range from \$20,000 to \$33,750 per space depending on the design and need for mechanical ventilation. The lowest cost is for “tuck-under” parking with a single level of parking on the building’s first floor, but its use is limited to lower density products with lower parking requirements. At the high end, parking built as the podium base for a building with other uses lining its perimeter will require expensive ventilation. Below-ground parking is most expensive at roughly \$41,200 per space. These per-space costs can be much higher when the site is irregularly shaped or has dimension less than optimal for parking garage layouts.
- Parking Ratios – Montgomery County sets minimum parking requirements for development under existing zoning categories with some allowances for reduced parking near transit stations. It also allows for reduced parking where spaces are shared among different land uses that generate peak parking demand at different hours of the day. For example, retail-only development requires 5.0 spaces per 1,000 square feet of general retail development and 25 spaces per 1,000 square feet of restaurants. That requirement can be cut almost in half by sharing with office uses.

Typically, an increase in density will be reflected in a higher land value per square foot of land but a lower value per FAR square foot due to higher costs to accommodate the density. Parking becomes much more expensive, and construction costs increase at higher buildings heights.

Appendix C compares returns for each existing zoning category across the different use potentials.

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Table 3. Residual Land Values Under Alternative Land Use Mixes and Densities

Zoning Category	Office/Retail		Apartments/Retail (1)		Condominiums/Retail (1)		Retail Only (3)	
	Residual Land Value per		Residual Land Value per		Residual Land Value per		Residual Land Value per	
	Land SF	FAR SF	Land SF	FAR SF (2)	Land SF	FAR SF (2)	Land SF	FAR SF
CBD Standard								
0.5 FAR	\$67	\$133	\$60	\$120	\$64	\$129	\$74	\$212
1.0 FAR	\$98	\$98	\$85	\$81	\$123	\$118	NA	NA
1.5 FAR	\$115	\$77	\$40	\$25	\$129	\$80	NA	NA
2.0 FAR	\$153	\$76	\$49	\$23	\$183	\$65	NA	NA
CBD Optional - 4.0 FAR								
Above-Ground Structured Parking	\$109	\$42	-\$6	-\$1	\$204	\$68	NA	NA
Below-Ground Structured Parking	\$53	\$13	-\$86	-\$20	\$220	\$50	NA	NA
TMX-2 Standard								
0.5 FAR	\$67	\$133	\$60	\$119	\$65	\$129	\$74	\$212
TMX-2 Optional								
1.0 FAR	\$90	\$90	\$70	\$76	\$116	\$111	NA	NA
1.5 FAR	\$105	\$70	\$39	\$25	\$122	\$76	NA	NA
2.0 FAR	\$140	\$70	\$52	\$24	\$176	\$82	NA	NA
C2 Standard								
Commercial - 1.5 FAR	\$115	\$77	NA	NA	NA	NA	\$74	\$212
Mixed Use - 1.0 FAR	NA	NA	\$35	\$81	\$123	\$118	NA	NA
Mixed Use - 1.5 FAR	NA	NA	\$68	\$25	\$129	\$80	NA	NA
TOMU	NA	NA	\$111	\$52	\$223	\$104	NA	NA

Note: (1) Residual land values for apartment/retail development are much lower than those for condominium/retail development because of greater market constraints on rents than on condominium prices.
(2) Includes Bonus FAR for workforce housing.
(3) Retail developed at a 0.35 FAR with free surface parking.
Source: Partners for Economic Solutions, 2009.

Development Under CR Zoning

The second set of analyses focuses on the financial implications of developing under CR zoning with different land use mixes and selection of incentive density provisions. Three development sites within White Flint were selected for analysis. They include Site #1 at the corner of Rockville Pike and Nicholson Lane (now occupied by Anthropologie), Site #2 northwest from the intersection of Nicholson Lane and Nebel Court (including a portion of the Metro bus lot), and Site #3 southeast of the Nicholson Lane/Nebel Court intersection (currently occupied by the La-Z-Boy showroom and other businesses). The sites vary in size and zoning as follows:

- Site #1 has 0.93 acres zoned CR 4.0, C 3.5, R 3.5, H 300, which allows a maximum FAR of 4.0, of which no more than 3.5 FAR can be commercial or residential exclusively, and a maximum height of 300 feet;
- Site#2 has 3.1 acres zoned CR 3.0, C 1.5, R 2.5, H 200; and
- Site #3 has 7.7 acres zoned CR 2.5, C 1.5, R 2.0, H 70.

The models detailed in Table 4 included:

- Site #1
 - Mixed residential/office/retail
 - Condominium residential/retail
 - Office/retail
- Site #2
 - Condominium residential/retail
 - All condominium residential
- Site #3
 - Condominium residential/retail
 - All condominium residential

Each development has a density sufficient to require structured parking, assumed to be developed in an above-ground structure to avoid the significant cost premium associated with below-ground parking.

Table 4. Development Scenarios for Modeling Under CR Zoning

	Site #1 - Nicholson Ln. at Rockville Pike			Site #2 - Nicholson Ln. at Nebel St. (NW)		Site #3 - Nicholson Ln. at Nebel St. (SE)	
	Alternative #1	Alternative #2	Alternative #3	Alternative #1	Alternative #2	Alternative #1	Alternative #2
	Site Size (in acres)	0.93	0.93	0.93	3.06	3.06	7.73
Distance to Metro	< 1/4 mile	< 1/4 mile	< 1/4 mile	1/4 to 1/2 mile	1/4 to 1/2 mile	1/4 to 1/2 mile	1/4 to 1/2 mile
Zoning	CR4.0, C3.5, R3.5	CR4.0, C3.5, R3.5	CR4.0, C3.5, R3.5	CR3.0, C1.5, R2.5	CR3.0, C1.5, R2.5	CR2.5, C1.5, R2.0	CR2.5, C1.5, R2.0
Maximum Height	300 feet	300 feet	300 feet	200 feet	200 feet	70 feet	70 feet
Use Mix							
FAR	4.0	3.9	3.5	2.92	2.5	2.41	2.0
Building Gross Square Feet	162,392	158,332	142,093	388,856	332,925	811,139	673,144
First-Floor Retail @ 0.4 FAR	0.4 FAR	0.4 FAR	0.4 FAR	0.4 FAR	0.0 FAR	0.4 FAR	0.0 FAR
Office Space	1.4 FAR	0.0 FAR	3.1 FAR	0.0 FAR	0.0 FAR	0.0 FAR	0.0 FAR
Residential Condominiums	2.2 FAR	3.4 FAR	0.0 FAR	2.5 FAR	2.5 FAR	2.0 FAR	2.0 FAR
Structure Type	High-Rise	High-Rise	High-Rise	High-Rise	High-Rise	Stick-Built	Stick-Built
Public Use Space (in s.f.)	4%	4%	4%	6%	6%	10%	10%
MPDUs	12.5%	12.5%	0.0%	12.5%	12.5%	12.5%	12.5%
Workforce Housing Units (% of market)	10.0%	10.0%	0.0%	10.0%	10.0%	10.0%	10.0%
Parking Type	Podium with Building Above	Podium with Building Above	Podium with Building Above	Above-Ground	Above-Ground	Above-Ground	Above-Ground
Maximum Parking per 1,000 s.f. Retail (1)	3.60	9.85	4.90	9.00	NA	9.00	NA
Minimum Parking per 1,000 s.f. Retail (1)	0.72	1.97	0.98	3.60	NA	3.60	NA
Assumed Parking per 1,000 s.f. Retail	3.50	3.50	3.50	3.60	3.50	3.50	NA
Maximum Parking per 1,000 s.f. Office	2.40	NA	2.40	NA	NA	NA	NA
Minimum Parking per 1,000 s.f. Office	0.48	NA	0.48	NA	NA	NA	NA
Assumed Parking per 1,000 s.f. Office	2.00	NA	2.00	NA	NA	NA	NA
Maximum Parking per Residential Unit (2)	1.13	1.13	NA	1.19	1.19	1.19	1.19
Minimum Parking per Residential Unit (2)	0.68	0.68	NA	0.83	0.83	0.83	0.83
Assumed Parking per Residential Unit	1.00	1.00	NA	1.00	1.00	1.00	1.00
Maximum Parking per 1,000 s.f. Care Center	NA	NA	NA	6.5	NA	6.5	NA
Minimum Parking per 1,000 s.f. Care Center	NA	NA	NA	2.60	NA	2.60	NA
Assumed Parking per 1,000 s.f. Care Center	NA	NA	NA	2.60	NA	2.60	NA
Shared Car Spaces (3)	2	2	2	4	4	4	4

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Table 4. Development Scenarios for Modeling Under CR Zoning (Continued)

	Site #1 - Nicholson Ln. at Rockville Pike			Site #2 - Nicholson Ln. at Nebel St. (NW)		Site #3 - Nicholson Ln. at Nebel St. (SE)	
	Alternative #1	Alternative #2	Alternative #3	Alternative #1	Alternative #2	Alternative #1	Alternative #2
	Incentive Density Factors						
Community Connectivity	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Care Center (in s.f.)	-	-	-	2,000	-	2,000	-
Workforce Housing Units (% of market)	10.0%	10.0%	0.0%	10.0%	10.0%	10.0%	10.0%
Unit Mix and Size	No	No	No	No	No	No	No
Local Retail Preservation	No	No	No	No	No	No	No
Floor Plate Size	Yes	Yes	Yes	No	No	No	No
Podium/Tower Setback	No	No	Yes	No	No	Yes	No
Public Plaza/Open Space (in s.f.)	-	-	2,500	-	2,500	-	2,500
Streetscape, Off-Site (in s.f.)	-	-	-	-	-	-	-
Wow Factor	No	No	No	No	No	No	No
Transferable Development Rights	-	-	-	-	-	-	-
Dark Skies (# of fixtures)	-	-	-	-	-	-	-
LEED	No	No	Silver	Gold	No	Gold	No
Trees Canopy (in s.f.)	-	-	-	-	-	-	-
Vegetated Area (in s.f.)	-	-	-	-	5,000	-	-
Vegetated Roof (80% coverage, 60% of roof, in s.f.)	9,700	9,700	-	-	-	-	-
Percent of Incentive Density							
	Transit 40%	Transit 40%	Transit 40%	Transit 30%	Transit 30%	Transit 30%	Transit 30%
	Comm Conn 20%	Comm Conn 20%	Comm Conn 20%	Comm Conn 20%	Comm Conn 20%	Comm Conn 20%	Comm Conn 20%
Incentive Density Factors Used	WFHU 20%	WFHU 20%	Floor Plate 10%	Care Ctr 10%	WFHU 20%	Care Ctr 10%	WFHU 20%
	Floor Plate 10%	Floor Plate 10%	Podium 5%	WFHU 20%	Plaza 5%	WFHU 20%	Plaza 5%
	Veg. Roof 10%	Veg. Roof 10%	Plaza 5%	LEED Gold 20%	Veg. Area 5%	LEED Gold 20%	
			LEED Silver 10%				
Total Percent Needed/Earned	100% / 100%	96% / 100%	86% / 90%	97% / 100%	80% / 80%	96% / 100%	75% / 75%
(1) Retail parking assumes 20 percent restaurant and 80 percent general retail. Adjusted for shared use.							
(2) Assumes 35 percent one-bedroom units and 65 percent two-bedroom units.							
(3) One shared car space replaces six commercial spaces or three residential spaces. Assumes even split between commercial and residential.							
Source: The Edgecombe Group; Partners for Economic Solutions, 2009.							



Summarized in Table 5, the pro forma analyses of development under CR zoning show returns relatively comparable to or better than those achieved under existing zoning provisions.

Condominium/retail development under existing zoning categories supported land values of \$64 to \$183 per land square foot under CBD Standard zoning and \$294 under CBD Optional Method zoning with above-ground structured parking. Values were lower with TMX-2 zoning, ranging from \$65 to \$176 per land square foot, and with C2 zoning, which range from \$123 to \$223. With CR zoning and an FAR of 2.5 to 4.0, condominium/retail development would support land values of \$233 to \$286 per land square foot.

The models took advantage of the incentive density provisions to qualify for the maximum FAR using proximity to transit, workforce housing and community connectivity incentives to qualify for a large share of the total required incentive density. Various alternatives took advantage of care center, floor plate size, public plaza, LEED certification and green roof incentive density.

The Edgecombe Group prepared massing analyses to test the potential for developing the sites under CR zoning using a hypothetical mix of incentive density provisions. These massing studies appear in Appendix D.

In this massing and financial modeling exercise, we observed the following:

- The floor plate size restrictions did not work well with the 70-foot height limit closest to adjoining residential areas. The need to build above-ground parking along with buildings with an FAR of 2.5 left a limited building envelope, one that was incompatible with restricted floor plates.
- Mixed-use development with residential and retail did not typically reach the maximum FAR. Developing a single floor of retail space imposed an effective limit of 0.4 FAR on the commercial space.
- Underground parking is prohibitively expensive.
- The development's feasibility is closely linked to the amount of parking provided. There is a struggle between the financial imperative to reduce the amount of structured parking and the need to meet the demands of future tenants and residents. This is particularly true for retail development where shoppers are unlikely to pay enough to support the cost of building structured parking.
- Some of the incentives, such as public plazas, may be difficult to use on small sites.
- On parcels with irregular shapes, the requirement to build to the sidewalk imposes extra cost premiums and building inefficiencies by deviating from more efficient rectangular layouts.
- The value of incentive density varies with the FAR. A 20-percent incentive density in a 4.0 FAR zone is worth 0.7 FAR as opposed to 0.4 FAR in a 2.5 FAR zone.

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Development Characteristics	Table 5. Alternative Developments with CR Zoning							
	Site #1 - Nicholson Ln. at Rockville Pike			Site #2 - Nicholson Ln. at Nebel St. (NW)		Site #3 - Nicholson Ln. at Nebel St. (SE)		
	Alternative #1	Alternative #2	Alternative #3	Alternative #1	Alternative #2	Alternative #1	Alternative #2	
Floor Area Ratio	4.0	3.9	3.5	2.92	2.5	2.41	2.0	
Site Size (SF)	40,598	40,598	40,598	133,170	133,170	336,572	336,572	
Public Use Space (SF)	1,624	1,624	1,624	7,090	7,090	33,657	33,657	
Net Lot Area	38,974	38,974	38,974	125,180	125,180	302,915	302,915	
Total Gross Square Feet Including Bonus	162,392	158,332	142,093	388,856	332,925	811,139	673,144	
Total Base Gross Square Feet	162,392	158,332	142,093	388,856	332,925	811,139	673,144	
Bonus Density for Workforce Units								
Net Base Building Square Feet	138,033	134,582	127,883	330,528	282,980	689,468	572,172	
Residential Gross Leaseable Area	70,643	118,342	-	275,258	282,980	552,838	572,172	
Number of Residential Units	76	127	-	296	300	595	616	
Number of Market & MPDU Units	70	117	-	273	281	648	567	
Average Net Square Feet per Unit	930	932	-	930	928	929	929	
MPDUs	9	15	-	35	36	69	71	
Workforce Housing Units	6	10	-	23	24	47	49	
Retail Gross Leaseable Area (0.0-0.4 FAR)	16,240	16,240	16,239	53,270	-	134,630	-	
Office Gross Leaseable Area	51,150	-	111,644	-	-	-	-	
Care Center Square Feet	-	-	-	2,000	-	2,000	-	
Residential Parking Spaces (1)	72	120	-	279	288	561	581	
Office Parking Spaces	102	-	223	-	-	-	-	
Retail Parking Spaces (2)	57	57	57	186	-	471	-	
Care Center Parking Spaces	-	-	-	6	-	6	-	
Less Spaces Replaced by Shared Car Spaces	(7)	(7)	(10)	(14)	(14)	(14)	(14)	
Total Parking Spaces	224	170	270	457	274	1,024	567	
Sales & Operations								
Market Sale Price per Square Foot	\$475	\$475	\$475	\$475	\$475	\$475	\$475	
MPDU Sale Price per Unit	\$223,300	\$223,300	NA	\$223,300	\$223,300	\$223,300	\$223,300	
Workforce Sale Price per Unit	\$298,400	\$298,400	NA	\$298,400	\$298,400	\$298,400	\$298,400	
Cost of Sale	7.0%	7.0%	NA	7.0%	7.0%	7.0%	7.0%	
Condo Parking Sale Price	\$40,000	\$40,000	NA	\$40,000	\$40,000	\$40,000	\$40,000	
Net Sales Proceeds	\$31,758,000	\$53,069,600	NA	\$123,699,400	\$127,460,800	\$248,836,600	\$267,670,200	

Table 5. Alternative Developments with CR Zoning (Continued)

	Site #1 - Nicholson Ln. at Rockville Pike			Site #2 - Nicholson Ln. at Nebel St. (NW)		Site #3 - Nicholson Ln. at Nebel St. (SE)	
	Alternative #1	Alternative #2	Alternative #3	Alternative #1	Alternative #2	Alternative #1	Alternative #2
Office Rent per SF (full service)	\$42	\$42	\$42	\$42	\$42	\$42	\$42
Office Operating Expenses per SF	\$9	\$9	\$9	\$9	\$9	\$9	\$9
Retail Rent per SF (triple net)	\$45	\$45	\$45	\$45	\$45	\$45	\$45
Commercial Occupancy Rate	95%	95%	95%	95%	95%	95%	95%
Care Center Rent (triple net)	\$10	\$10	\$10	\$10	\$10	\$10	\$10
Monthly Office Parking Rate	\$100	\$100	\$100	\$100	\$100	\$100	\$100
Retail Average Daily Parking Fees (3)	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00
Net Commercial Operating Income	\$2,442,400	\$746,600	\$4,446,100	\$2,474,800	\$0	\$6,249,400	\$0
Costs							
Site Improvement Costs	\$162,400	\$162,400	\$162,400	\$532,700	\$532,700	\$1,346,300	\$1,346,300
Public Use Space Costs	\$62,100	\$62,100	\$62,100	\$305,600	\$305,600	\$1,287,300	\$1,287,300
Building Hard Costs (4)	\$23,871,600	\$23,274,800	\$21,099,200	\$58,639,500	\$48,274,100	\$113,281,300	\$94,009,400
Amenity Costs	\$67,900	\$67,900	\$125,000	\$0	\$125,000	\$0	\$125,000
Parking Hard Costs	\$7,560,000	\$7,560,000	\$5,737,500	\$14,973,000	\$9,273,600	\$33,230,400	\$18,708,200
Development Approval Process (months)	12	12	12	12	12	12	12
Construction Period (months)	24	24	24	24	24	24	24
Construction Financing (fees & interest)	\$2,613,600	\$2,414,800	\$2,454,300	\$5,847,000	\$4,401,500	\$11,833,100	\$8,686,700
Other Soft Costs (excluding exactions)	\$7,931,000	\$7,781,800	\$6,796,600	\$18,612,700	\$14,627,000	\$37,286,300	\$28,869,100
Tenant Improvements	\$3,775,500	\$1,218,000	\$6,800,100	\$4,095,300	\$0	\$10,197,300	\$0
Development Return (% of Net Condo Revenues)	15%	15%	15%	15%	15%	15%	15%
Exactions	\$881,700	\$917,900	\$707,200	\$2,284,900	\$2,054,300	\$7,786,500	\$7,302,400
Total Non-Land Development Costs	\$46,926,800	\$48,469,700	\$43,944,400	\$105,290,700	\$78,594,000	\$216,248,500	\$160,384,400
Residual Land Value Analysis							
Net Operating Income	\$2,442,400	\$746,600	\$4,446,100	\$2,474,800	\$0	\$6,249,400	\$0
Sales Revenue + Commercial Capitalized Value	\$64,323,300	\$63,010,900	\$55,576,300	\$156,696,700	\$127,450,800	\$332,161,900	\$257,670,200
Less Non-Land Devel. Costs & Return	\$51,689,500	\$51,420,100	\$48,338,840	\$123,845,600	\$98,712,200	\$253,574,000	\$198,984,900
Land Residual Value	\$12,683,800	\$11,690,800	\$7,237,460	\$32,851,100	\$28,738,600	\$78,587,900	\$58,685,300
Land Value per Site SF	\$311	\$286	\$178	\$247	\$216	\$283	\$174
Land Value per FAR SF	\$78	\$78	\$61	\$84	\$86	\$97	\$87

Notes: (1) Assumes site location within 1,600 feet of a transit station. Above-ground structure. Assumes 35 percent one-bedroom units and 65 percent two-bedroom units.

(2) Assumes 20 percent restaurant and 80 percent general retail. Adjusted for shared use.

(3) Retail parking revenues calculated at \$1,000 per hour with an average stay of two hours and a daily occupancy of 1.5 per space.

(4) Includes incremental costs for reduced floor plate size, podium/tower setback and LEED rating as appropriate.

Sources: Partners for Economic Solutions, 2009.

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Incremental Impacts of Incentive Density

To illustrate the incremental impacts of using each incentive, Table 6 adds each incentive density step-wise for Site #2, Alternative #1. This allows comparison of the incremental costs and benefits associated with each incentive. (Appendix Table E-1 provides the full pro formas.) To reach a maximum density of 2.92 FAR for condominium/retail development, the developer is assumed to take advantage of five incentive density provisions:

- Transit access between ¼ and ½ mile;
- Community connectivity;
- Workforce housing;
- Care center; and
- LEED Gold.

The step-wise calculation obscures some of the benefits of the incentive density as greater density triggers higher construction costs, as discussed below.

This example illustrates the large benefit associated with the 30-percent incentive density for proximity to the Metro station – over \$8 million or \$61 per land square foot. A portion of that benefit is attributable to the higher prices and rents achievable in a multi-story building rather than the one- or two-story building likely to be developed under standard method zoning with 0.5 FAR. Those benefits are reduced by the triggering of the workforce housing requirement (due to construction of more than 35 housing units) and the need to develop parking in an above-ground structure. The community connectivity incentive, which rewards proximity to an existing retail concentration, generates an incremental residual land value of \$56 per land square foot. No new project costs were associated with that benefit, though the original land price would reflect a premium.

Incentive	Increment by Incentive			Total		
	Percent of Increment	Incremental FAR Square Feet	Incremental Residual Land Value per Land SF	FAR	Residual Land Value	Residual Land Value per Land SF
Standard Method	0%	-	-	0.50	\$11,900,700	\$89
Transit Access Between 1/4 and 1/2 Mile (1)	30%	0.75	\$61	1.25	\$19,932,500	\$150
Community Connectivity	20%	0.50	\$56	1.75	\$27,390,700	\$206
Workforce Housing Units	20%	0.50	\$58	2.25	\$34,667,900	\$260
Care Center (2)	10%	0.25	\$7	2.50	\$38,630,900	\$268
LEED Gold (3) (4)	20%	0.42	\$18	2.92	\$33,192,500	\$249
Total Build-Out				2.92	\$33,192,500	\$249

Notes: (1) Value impacted positively by increase in amount of retail space from 0.2 to 0.4 FAR and higher rents/prices associated with multi-story buildings and impacted negatively by the requirement for workforce housing units and the increased cost of structured parking.
(2) Value impacted negatively by increase in construction costs caused by moving from stick-built to stick-built above a steel base.
(3) Value impacted negatively by increase in construction costs caused by moving to high-rise construction and an FAR increase of 0.42 rather than the maximum 0.5 due to restricting commercial space to the first floor.
(4) Negative impact would be much smaller if the potential for higher rents resulting from the marketing advantages of a LEED Gold rating were included.

Sources: Partners for Economic Solutions, 2009.

The incentive density for workforce housing units creates an incremental land value of \$55 per land square foot. No additional costs were included because workforce housing is required in the White Flint area. The addition of a care center provides an additional 0.25 FAR, but at a relatively high price of renting space at less than market rate and building structured parking spaces with no offsetting revenue. It is also impacted by the move from 2.25 to 2.50 FAR, which requires a change in construction techniques from stick-built to a combination of stick-built construction over a base of steel. The incentive density generates an increase in residual land value equal to \$7 per land square foot. If the impact of higher construction costs were excluded, the care center incentive density would have created an additional \$21 per land square foot in residual land value.

Upgrading the building to achieve LEED Gold certification imposes a cost burden estimated at 4.0 percent of construction costs. In this example, the move from 2.5 to 2.92 FAR also imposes a high construction cost premium as high-rise construction becomes necessary. Including the impact of higher construction costs, the LEED Gold investment reduces the land value by \$2.4 million or \$18 per land square foot. Without the construction cost impact, the LEED Gold incentive density would have increased residual land value by \$5.6 million or \$42 per land square foot.

ATTACHMENT 2

Memorandum

To: Jacob Sesker
Montgomery County Planning Department

From: Anita Morrison
Abigail Ferretti
Partners for Economic Solutions

Subject: Incremental Costs to Achieve Incentive Density Under Commercial/
Residential Zoning

Date: August 25, 2009

The proposed Commercial/Residential (CR) zoning amendment is intended to encourage a mix of commercial and residential uses at varying densities and heights. The CR Zone Standard Method establishes a base Floor Area Ratio (FAR) of 0.5 as a matter of right. To build more densely, the developer may qualify for incentive density up to a maximum FAR and height established by the Sector Plan. Incentive density is earned by selecting among 37 public benefit options, which are organized in six categories:

- Transit Proximity;
- Connectivity & Mobility;
- Diversity;
- Design;
- Environment; and
- Building Lot Terminations.

The incentive density is calculated as a percentage of the potential optional method density, i.e., the difference between the maximum FAR under the standard and optional methods of development. The developer also may propose other public benefits as the basis for an increase in density. No more than 30 percent of the total incentive density may come from any of the connectivity, design, diversity or environmental categories. Table 1 on the following page presents the Incentive Zoning Table from the draft ordinance as of July 13, 2009. The July 13 draft ordinance appears in Appendix A; subsequent drafts of the zone may have included revisions not reflected in the analysis.

Partners for Economic Solutions has prepared the following analysis to quantify the likely costs of achieving each incentive density provision to help policy makers understand the relative costs of providing the desired public benefits and the potential response of the market to the incentives. Some of the provisions relate specifically to the project's location

(e.g., proximity to transit); the incremental costs of those locations were reflected in the purchase price of the land. This analysis does not attempt to estimate those land price differentials. Others depend on the specific characteristics of the property, e.g., historic resource protection, and cannot be estimated in the abstract. The zoning ordinance amendment leaves some decisions to the Planning Board's discretion in deciding whether the applicant qualifies for the maximum incentive density increase. In those cases, this analysis quantifies the cost of meeting the minimum incentive density increase.

Some of the incentives reward actions already being taken by the real estate industry, particularly with respect to environmental enhancements. With the appeal of long-term operational efficiencies and cost savings, better employee working conditions and better environmental stewardship, "green buildings" are becoming standard in the local market. In that case, the LEED incentive rewards good development practices at no incremental cost to the developer. Incentives for quality development also coincide with developer strategies to attract high-end users, again rewarding practices with no incremental cost.

The costs of providing the desired public benefits are expressed in terms of cost per square foot of total development under three maximum FARs of 4.0, 3.0 and 2.5 and the cost per square foot of bonus density achieved assuming an FAR of 2.5. The maximum FARs are those proposed in the White Flint Sector Plan for different subareas. The costs reflect the economics of land development in the White Flint area (e.g., market rents and sales prices). The cost analysis assumes a 2.5-acre site. For some incentives, costs per square foot would be higher for smaller sites because they would have fewer total square feet to support the incremental cost.

Table 1. Incentive Zoning Table

Public Benefit	Percent of Incentive Density		Section Reference
	Minimum	Maximum	
<i>Transit Proximity</i>			
Adjacent or Confronting Transit Access	25	50	
Transit Access within ¼ Mile	20	40	15.72
Transit Access between ¼ and ½ Mile	15	30	
Transit Access between ½ and 1 Mile	10	20	
<i>Connectivity & Mobility</i>			
Community Connectivity	10	20	15.731
Community Garden	5	10	15.732
Parking at the Minimum	10	20	15.733
Pedestrian Through-Block Connection	5	10	15.734
Public Parking	20	30	15.735
Transit Access Improvement	10	20	15.736
<i>Diversity</i>			
Adaptive Buildings	15	30	15.741
Affordable Housing: MPDUs	See section reference		
Affordable Housing: WFHUs	See section reference		15.742
Care Center	10	20	15.743
Community Facility	10	20	15.744
Local Retail Preservation	10	20	15.745
Unit Mix and Size	5	10	15.746
<i>Design</i>			
Floor Plate Size	10	20	15.751
Historic Resource Protection	10	20	15.752
Parking Below Grade	10	20	15.753
Podium/Tower Setback	5	10	15.754
Public Art	10	20	15.755
Public Plaza/Open Space	5	10	15.756
Streetscape, Off-Site	5	10	15.757
Wow Factor	10	20	15.758
<i>Environment</i>			
Bio-retention and Stormwater Recharge	5	10	15.761
Conveyed Parkland	10	20	15.762
Dark Skies	5	10	15.763
Energy Efficiency and Generation	10	20	15.764
Green Wall	5	10	15.765
LEED Rating	10	30	15.766
Rainwater Reuse	5	10	15.767
Transferable Development Rights	10	30	15.768
Tree Canopy	10	20	15.769
Vegetated Area	5	10	15.761
Vegetated Roof	10	20	15.7611
<i>Building Lot Terminations</i>	0	50	15.77

Note: Value is not consistent with the text, which indicates a minimum incentive of 5 percent.
 Source: Draft Zoning Ordinance Amendment, July 13, 2009.

Table 2 on the following page estimates cost impacts for those criteria that lend themselves to quantification.

Transit Proximity Incentives

The transit proximity incentives relate to distance from the site to a Metro or MARC station. No attempt is made to quantify the differential land costs associated with different distances from transit facilities.

Connectivity & Mobility Incentives

The connectivity and mobility incentives reward projects that “encourage pedestrian and other non-auto travel for short and multi-purpose trips” and that “facilitate social interaction, provide opportunities for healthier living, and stimulate local businesses.”

Community Connectivity

This incentive provides a 10- to 20-percent incentive density bonus for locations within one-quarter to one-half mile of at least 10 different retail uses with direct pedestrian access. Most White Flint properties will qualify for this incentive given the concentration of existing retail uses if they have good pedestrian connections.

Community Garden

This incentive (5 to 10 percent) requires provision of community garden space at a rate of at least one space (minimum of 16 square feet) per 20 dwelling units with at least 10 percent of these spaces accessible according to ADA standards. The maximum bonus requires additional features such as a composting facility or doubling as a green roof. Creating the proper soil depth costs an average of \$7 per square foot of garden space. On a rooftop, such as that created by a building setback from the building's base, an additional cost is incurred to support the weight of humans as well as plants for a total incremental cost of \$35 per square foot. The hard cost of compliance ranges from \$0.10 per square foot of additional density for a garden on the ground and \$0.24 for a rooftop community garden. However, the opportunity cost associated with gardening on the ground is substantially higher than on the roof.

Table 2. Unit Prices for Providing Incentivized Amenities

Unit Price	Cost per FAR Sq. Ft.			Bonus Density		Cost per Bonus Sq. Ft. (1)	
	4.0 FAR	2.0 FAR	2.5 FAR	Low	High	Low	High
Transit Proximity							
Adjacent or Fronting Transit Access	Function of location			15%	30%		
Transit Access Within 1/4 Mile	Function of location			20%	40%		
Transit Access Between 1/4 and 1/2 Mile	Function of location			15%	30%		
Transit Access Between 1/2 and 1 Mile	Function of location			10%	20%		
Connectivity & Mobility							
Community Connectivity							
Community Garden (16 SF on roof per 20 units)	Function of location			10%	20%		
Community Garden (16 SF on roof per 20 units)	\$55.00 per garden SF	\$0.00	\$0.00	5%	10%	\$0.10	\$0.20
Parking at the Minimum	See spreadsheet			10%	20%		
Pedestrian Through Block Connection (600 LF of concrete)	\$100.00 per linear foot	\$0.15	\$0.37	5%	10%	\$0.03	
Public Parking (0.4 additional spaces per 1,000 SF) (2)	\$22,500 per aboveground space	\$3.07	\$5.85	20%	30%		\$14.40
Transit Access Improvement	Specific to project			10%	20%		
Diversity							
Adaptive Buildings							
Adaptive Buildings	\$11.00 per SF	\$11.88	\$11.88	15%	30%	\$19.27	
MFDU Increase of 1 Percent - Apartments	See spreadsheet			10%	20%		\$27.64
MFDU Increase of 1 Percent - Condominiums	See spreadsheet			10%	20%		\$79.07
Workforce Housing Increase of 1 Percent - Apartments	See spreadsheet			10%	20%		\$5.49
Workforce Housing Increase of 1 Percent - Condominiums	See spreadsheet			10%	30%		\$23.25
Care Center - 2,000 SF at \$10 PSF (single use)	\$750.00 ramp sum		\$2.94	10%	20%	\$49.72	
Community Facility - 2,000 SF at \$0 Rent	\$949.440 ramp sum		\$3.60	10%	20%	\$43.53	
Local Retail Preservation	Specific to project			10%	20%		
Unit Size and Mix	See spreadsheet			5%	10%	\$44.16	\$19.54
Design							
Place Place Rate	\$2 per SF	\$1.76	\$2.50	10%	20%	\$15.00	
Historic Resource Protection	Specific to project			10%	20%		
Parking Below Grade vs. Above-Grade with Lower Building							
Office/Retail Building	\$12,000 per space	\$31.00	\$40.00	10%	20%		\$236.00
Residential/Retail Building	\$12,000 per space	\$22.00	\$33.00	10%	20%		\$140.00
Podium/Tower Building	\$0.75 per SF	\$0.75	\$0.75	5%	10%	\$4.70	\$15.00
Public Art - 1% of Development Hard Costs	\$1.10 per SF	\$1.10	\$1.10	5%	20%	\$17.50	\$17.50
Public Plaza/Open Space - 2,500 SF	\$50 per SF	\$0.29	\$0.34	5%	10%	\$12.48	
Streetscape, Office - 17,043 SF (18% of net lea)	\$37 per square foot	\$1.53	\$1.73	5%	10%	\$60.44	\$60.44
Wind Factor - Exterior Enhancements, Higher Arch Fee	Specific to project			10%	20%		
Environment							
Net Retention and Stormwater Recharge (25% of runoff)	\$7.400 per 1,000 SF impervious	\$1.65	\$2.27	5%	10%	\$66.80	
Net Retention and Stormwater Recharge (50% of runoff)	\$12,000 per 1,000 SF impervious	\$2.70	\$3.60	5%	10%	\$54.00	\$54.00
Covered Parkland (50% of gross lot area)	\$50 per SF	\$1.50	\$5.00	10%	20%	\$17.50	\$37.50
Dark Skies (5 Features per 1,000 SF)	\$5,000 ramp sum	\$0.04	\$0.02	5%	10%	\$0.20	\$0.20
Energy Efficiency and Generation (0-21 kWh)	\$10,000 per kilowatt	\$0.29	\$0.37	10%	20%	\$2.20	\$1.84
Green Wall - 100' Wall for 3 Stories (4,000 SF)	\$8 per SF	\$0.07	\$0.29	5%	10%	\$2.64	
LEED Rating - Silver (3)	0.5% of development costs	\$1.60	\$1.60	10%	20%	\$20.00	
LEED Rating - Gold (4)	1.0% of development costs	\$3.20	\$3.20	20%	30%	\$70.88	
LEED Rating - Platinum (5)	2.0% of development costs	\$6.40	\$6.40	30%	50%	\$128.17	
Rainwater Reuse (25% of runoff)	\$4,800 per 1,000 SF impervious	\$1.68	\$1.44	10%	10%	\$48.00	
Rainwater Reuse (50% of runoff)	\$7,200 per 1,000 SF impervious	\$1.65	\$2.16	5%	10%	\$32.00	\$32.00
Transferable Development Rights (10 TDRs for 20 units or 25,000 SF)	\$20,000 per TDR	\$0.66	\$0.61	10%	30%	\$9.18	\$9.18
Tree Canopy (50% coverage)	\$107 per 1,000 SF open space	\$0.004	\$0.006	10%	20%	\$0.03	\$0.03
Vegetated Area (4,000 SF)	\$0.750 per 1,000 SF	\$0.01	\$0.09	5%	10%	\$2.47	
Vegetated Roof - 60% of roof area (52,800 SF)	\$1 per SF	\$0.04	\$1.12	10%	20%	\$9.24	\$8.40
Building Lot Terminations							
Building Lot Terminations (3-12 B.U.'s)	\$200,000 per B.U.T	\$2.40	\$2.08	5%	5%	\$0.00	\$3.72

Notes: Data at constant 2008 dollars.

Assumes a 1/4-acre site with a perimeter of 1,660 LF and development covering 80 percent of the site.

(1) Based on a bonus density of 2.0 FAR.

(2) Parking construction cost offset by revenues of \$5.00 per space on weekdays (85% occupancy) and \$3.00 on weekends (25% occupancy).

(3) Based on experience with previous versions of LEED ratings.

Source: A. Marton Thomas & Associates, The Edgewood Group, Partners for Economic Solutions, 2008.

Parking at the Minimum

To discourage reliance on auto travel, this incentive provides a 10-percent density bonus for sites of one acre or more and a 20-percent bonus for smaller sites that provide only the minimum required number of parking places. The provision of fewer parking spaces would reduce the cost of development. Table 3 illustrates the increase in residual land value associated with changes in parking requirements for an office/retail building. A minimal

decrease in requirements from 2.4 to 2.3 spaces for office space and from 4.9 to 4.8 spaces for retail space would increase the residual land value by \$4 per land square foot, or \$436,000 for a 2.5-acre site. Qualifying for this incentive would require parking at a significantly lower ratio than the current requirements. While allowing for reduced parking may significantly reduce development costs, it is unlikely that the market will support parking at levels low enough to qualify for the incentive bonus under current conditions.

The minimum parking standard under the proposed CR zoning provides for less than 0.5 parking spaces per 1,000 square feet of office space within one-quarter mile of a Metro station. In today's market, developers report that demand requires roughly 2.0 spaces per 1,000 square feet. With similar proximity to transit, retail space would be limited to 1.0 space per 1,000 square feet as opposed to the current requirement of 5.0 spaces and the demands from most chain retailers for 3.0 to 5.0 spaces. Parking demand will likely decline over time as the area develops a more integrated mix of uses with better pedestrian and bicycle connections. In the meantime, the financial investors are unlikely to finance projects with parking at the minimum standards.

Table 3. Impact of Parking on Office/Retail Residual Land Value (1)				
Parking Spaces per 1,000 Square Feet	CR2.5, C1.5, R2.0, H70 (2)			
	Above-Ground Parking		Below-Ground Parking	
	Residual Land Value per		Residual Land Value per	
	Land SF	FAR SF	Land SF	FAR SF
C2 Standard at 1.5 FAR				
Office at 2.4, Retail at 4.9 (3)	\$92	\$61	\$68	\$45
CR Zoning C2.5, C1.5, R2.0				
Office at 2.4, Retail at 4.9	\$98	\$65	\$20	\$14
Office at 2.3, Retail at 4.8	\$102	\$68	\$27	\$18
Office at 2.2, Retail at 4.7	\$106	\$71	\$34	\$22
Office at 2.1, Retail at 4.6	\$111	\$74	\$41	\$27
Office at 2.0, Retail at 4.5	\$115	\$77	\$48	\$32
Office at 2.0, Retail at 4.4	\$116	\$78	\$49	\$33
Office at 2.0, Retail at 4.3	\$118	\$78	\$52	\$34
Office at 2.0, Retail at 4.2	\$119	\$79	\$53	\$36
Office at 2.0, Retail at 4.1	\$120	\$80	\$55	\$37
Office at 2.0, Retail at 4.0	\$121	\$81	\$57	\$38
Office at 2.0, Retail at 3.9	\$122	\$82	\$59	\$39
Office at 2.0, Retail at 3.8	\$123	\$82	\$61	\$40
Office at 2.0, Retail at 3.7	\$125	\$83	\$63	\$42
Office at 2.0, Retail at 3.6	\$126	\$84	\$65	\$43
Office at 2.0, Retail at 3.5	\$127	\$85	\$67	\$44
Office at 1.9, Retail at 3.4	\$132	\$88	\$74	\$49
Office at 1.8, Retail at 3.3	\$136	\$91	\$80	\$54
Office at 1.7, Retail at 3.2	\$140	\$94	\$88	\$58
Office at 1.6, Retail at 3.1	\$145	\$96	\$94	\$63
Office at 1.5, Retail at 3.0	\$149	\$99	\$101	\$67
Note: (1) Assumes an average of \$3 per retail parking space per day and \$100 per month per office parking space.				
(2) Assumes office/retail development at 1.5 FAR using incentives for Metro proximity and community connectivity. Office is 1.1 FAR with retail at 0.4 FAR.				
(3) General retail at 5.0 spaces per 1,000 square feet and restaurants at 25.0 spaces per 1,000 square feet. Assumes 20 percent restaurant and 80 percent general retail. Adjusted to 4.9 spaces to reflect shared use.				
Source: Partners for Economic Solutions, 2009.				

Pedestrian Through-Block Connections

This incentive requires a pedestrian connection between two or more streets. The pathway must be at least 15 feet in width and be lined with glass on a minimum of 35 percent of the walls facing the pathway. Calculated as an open-air 15-foot-wide pathway for a length of 500 feet, this provision would cost at least \$66,000 to achieve the minimum 5-percent bonus. This is equivalent to \$6.03 per square foot of bonus density. This cost does not take into account the potential impact of inefficiencies imposed on building layout nor any



market premium that might be created by the inclusion of an attractive pedestrian amenity. Reaching the maximum 10-percent bonus could be much more expensive, requiring lining the path with retail space, increasing the width or integrating public art.

Public Parking

Providing publicly accessible parking spaces (the difference between the minimum and maximum number of allowed spaces) for free or at a market rate would qualify a project for a 20-percent bonus density. The maximum 30-percent bonus density requires constructing the parking underground or in a structure. For projects planning to provide the maximum number of allowed spaces, this incentive could have a minimal cost related to providing a system to collect parking fees. Most projects developed under the CR zone's optional method will be building parking structures rather than relying on surface parking. Projects taking advantage of the lower parking requirements will find this less enticing given that parking fees would not offset the cost of providing additional parking beyond that required for the immediate project. The incremental cost of providing the maximum parking (2.4 spaces per 1,000 square feet of office space) relative to providing what the market demands (2.0 spaces) would have a cost of \$3,500,000 for a 2.5-acre site in a 2.5 FAR zone. Charging for parking through monthly passes for office employees and meters for retail patrons and office visitors could reduce the net cost of that provision. Assuming monthly passes of \$100 for 70 percent of the incremental spaces above the minimum number of required spaces and \$8 per day from short-term and all-day parking for 30 percent of the spaces on weekdays, parking revenues could offset roughly \$1,900,000 of that cost, leaving a net cost of \$24.49 per square foot of incentive density.

Transit Access Improvements

This incentive provides bonus density for transit access improvements within one-half mile of the development site or provision of mobile transit improvements (e.g., a bus shuttle). Satisfying this requirement will depend upon the specific property and the type of improvements provided.

Diversity Incentives

These incentives seek to increase the diversity of future residents and retailing.

Adaptive Buildings

To encourage buildings that can be adapted to a diversity of uses over time, this 15-percent incentive requires a minimum floor-to-floor dimension of 15 feet for all floors and an internal floor plan with a structural system that allows flexibility in the division of the floor plate to "any number of parceled volumes." To achieve the 30-percent maximum density bonus, the building must have additive capacity for any available density and height or an internal layout with a "flexible cellular system that allows for residential, retail, and office

uses to occupy any of the cells.” These are very expensive requirements. Increasing the typical 10-foot to 11-foot floor-to-floor dimension to 15 feet would impose a cost of roughly \$12 per square foot. The incremental cost per square foot of incentive density is estimated at \$79.17. Some of that cost might be recouped by internal loft construction that increased the effective square footage, though that new space would be subject to the maximum FAR limits. In zones with lower maximum building heights, this provision also could result in losing an entire floor of development – a major opportunity cost. Given the high direct cost and potential opportunity costs, this incentive is unlikely to be used.

Affordable Housing - MPDUs

Provision of additional Moderately Priced Dwelling Units (MPDUs) above the minimum required 12.5 percent of non-workforce housing units would qualify the project for a bonus density up to 25 percent. Table 4 illustrates the incremental cost of providing additional MPDUs and workforce housing units as rental apartments. Table 5 provides the same analysis for a condominium development. The density incentive compensates fully for the inclusion of additional MPDUs as the value of the increased density provides returns in excess of the value lost by committing units to lower-rent tenants. However, there are less expensive means to achieve the same increase in incentive density.

Table 4. Incremental Cost of Providing MPDUs and WFHUs in Apartment/Retail Development Under CR Zoning

	CR2.5, C1.5, R2.0			
	12.5% MPDU 0% WFHUs	12.5% MPDU 10% WFHUs	13.5% MPDU 10% WFHUs	12.5% MPDU 11% WFHUs
Development Characteristics				
Floor Area Ratio	1.80	2.20	2.40	2.24
Percent of Incentive Density	0%	20%	30%	22%
Incentive Density	-	0.40	0.60	0.44
Site Size (SF)	108,900	108,900	108,900	108,900
Public Use Space (SF)	6,534	6,534	6,534	6,534
Net Lot Area	102,366	102,366	102,366	102,366
Total Base Gross Square Feet	196,020	239,580	261,360	243,936
Net Total Building Square Feet	166,617	203,643	222,156	207,346
Residential Gross Leaseable Area	123,057	160,083	178,596	163,786
Number of Residential Units	124	164	184	168
Number of Market & MPDU Units	124	151	170	154
Average Net Square Feet per Unit	994	975	973	976
MPDUs	16	19	23	20
Workforce Housing Units	-	13	14	14
Retail Gross Leaseable Area (0.4 FAR)	43,560	43,560	43,560	43,560
Residential Parking Spaces (1)	127	155	173	159
Retail Parking Spaces (2)	152	152	152	152
Operations				
Market Apartment Monthly Rent per Unit	\$2,196	\$2,196	\$2,196	\$2,196
MPDU Monthly Rent per Unit	\$1,396	\$1,396	\$1,396	\$1,396
Workforce Housing Rent per Unit	\$1,659	\$1,659	\$1,659	\$1,659
Retail Rent per SF (triple net)	\$45	\$45	\$45	\$45
Occupancy Rate	95%	95%	95%	95%
Apartment Operating Expense per Unit	\$5,000	\$5,000	\$5,000	\$5,000
Apartment Monthly Parking Rate	\$100	\$100	\$100	\$100
Retail Average Daily Parking Fees (3)	\$3.00	\$3.00	\$3.00	\$3.00
Net Operating Income	\$4,499,400	\$5,228,800	\$5,610,600	\$5,300,200



Table 4. Incremental Cost of Providing MPDUs and WFHUs in Apartment/Retail Development Under CR Zoning (Continued)

	CRZ 3, C1.5, R2.0			
	12.5% MPDU 0% WFHUs	12.5% MPDU 10% WFHUs	13.5% MPDU 10% WFHUs	12.5% MPDU 11% WFHUs
Costs				
Site Improvement Costs	\$435,600	\$435,600	\$435,600	\$435,600
Public Use Space Costs	\$249,900	\$249,900	\$249,900	\$249,900
Building Hard Costs	\$23,382,400	\$28,578,500	\$31,176,500	\$29,098,100
Parking Hard Costs	\$9,416,250	\$10,361,250	\$10,968,750	\$10,498,250
Development Approval Process (months)	12	12	12	12
Construction Period (months)	24	24	24	24
Construction Financing (fees & interest)	\$2,715,500	\$3,177,400	\$3,418,600	\$3,226,700
Other Soft Costs (excluding exactions)	\$8,371,000	\$9,906,300	\$10,707,700	\$10,070,000
Tenant Improvements	\$3,267,000	\$3,267,000	\$3,267,000	\$3,267,000
Exactions	\$1,955,500	\$2,303,500	\$2,519,100	\$2,332,200
Total Non-Land Development Costs	\$49,793,200	\$58,279,500	\$62,743,200	\$59,175,800
Residual Land Value Analysis				
Net Operating Income	\$4,499,400	\$5,228,800	\$5,610,600	\$5,300,200
Capitalized Value	\$64,277,100	\$74,697,100	\$80,151,400	\$75,717,100
Less Non-Land Development Costs	\$49,793,200	\$58,279,500	\$62,743,200	\$59,175,800
Less Return on Investment (9%)	\$4,481,400	\$5,245,200	\$5,646,900	\$5,325,800
Land Residual Value (4)	\$10,002,600	\$11,172,400	\$11,761,900	\$11,215,600
Land Residual per Site SF	\$92	\$193	\$108	\$103
Land Residual per FAR SF	\$51	\$47	\$45	\$46
Incremental Cost of Providing MPDUs and WFHUs				
Total		-\$1,169,900	-\$588,900	-\$43,100
Per Unit (5)		-\$7,125	-\$3,208	-\$257
Per GSF (5)		-\$4.88	-\$2.25	-\$0.18
Per Incentive Density SF		-\$26.86	-\$27.04	-\$9.89
Notes: (1) Assumes site location within 1,600 feet of a transit station. Above-ground structure. Assumes 35 percent one-bedroom units and 65 percent two-bedroom units.				
(2) Retail parking at 3.5 spaces per 1,000 square feet.				
(3) Retail parking revenues calculated at \$1.00 per hour with an average stay of two hours and a daily occupancy of 1.5 per space for developments with structured parking.				
(4) Residual value is the amount a developer could pay for the land and still achieve the return required to attract investment.				
(5) Calculated as cost per total number of units and total gross square feet.				
Source: Partners for Economic Solutions, 2009.				

Affordable Housing - WFHUs

Residential developments in the White Flint area are required to provide a minimum number of workforce housing units (WFHUs) equal to 10 percent of the market-rate (non-MPDU) units. This provision allows a 20-percent incentive density for that investment in workforce housing, whether required or voluntary, and two times the percentage of WFHU units to a maximum of 30 percent. Table 4 calculated the incremental cost of providing



WFHUs in an apartment development. Table 5 provides the same analysis for a condominium development. As with MPDUs, the incentive density fully compensates for the additional cost of providing WHFUs.

This incentive density provision differs from C2 zoning where the creation of workforce housing units entitles the developer to a commensurate increase in the project's FAR and height. Making this an automatic incentive density under CR zoning reduces the problems associated with securing community acceptance of the greater project size required to take advantage of the additional workforce housing FAR.

Table 5. Incremental Cost of Providing MPDUs and WFHUs in Condominium/Retail Development Under CR Zoning				
CR2.5, C1.5, R2.0				
	12.5% MPDU 0% WFHUs	12.5% MPDU 10% WFHUs	13.5% MPDU 10% WFHUs	12.5% MPDU 11% WFHUs
Development Characteristics				
Floor Area Ratio	1.80	2.20	2.40	2.24
Percent of Incentive Density	0%	20%	30%	22%
Incentive Density	-	0.40	0.60	0.44
Site Size (SF)	108,900	108,900	108,900	108,900
Public Use Space (SF)	6,534	6,534	6,534	6,534
Net Lot Area	102,366	102,366	102,366	102,366
Total Base Gross Square Feet	196,020	239,580	261,360	243,936
Net Base Building Square Feet	166,617	203,643	222,156	207,346
Residential Gross Leaseable Area	123,057	160,083	178,596	163,786
Number of Residential Units	131	172	192	176
Number of Market & MPDU Units	131	159	177	161
Average Net Square Feet per Unit	936	929	929	929
MPDUs	17	20	24	21
Workforce Housing Units	-	13	15	15
Retail Gross Leaseable Area (0.4 FAR)	43,560	43,560	43,560	43,560
Residential Parking Spaces (1)	134	163	180	166
Retail Parking Spaces (2)	152	152	152	152
Sales & Operations				
Market Sale Price per Square Foot	\$475	\$475	\$475	\$475
MPDU Sale Price per Unit	\$203,300	\$203,300	\$203,300	\$203,300
Workforce Sale Price per Unit	\$298,400	\$298,400	\$298,400	\$298,400
Cost of Sale	7.0%	7.0%	7.0%	7.0%
Condo Parking Sale Price	\$40,000	\$40,000	\$40,000	\$40,000
Net Sales Proceeds	\$55,530,300	\$70,496,300	\$78,185,400	\$71,762,300
Retail Rent per SF (triple net)	\$45	\$45	\$45	\$45
Retail Occupancy Rate	95%	95%	95%	95%
Retail Average Daily Parking Fees (3)	\$3.00	\$3.00	\$3.00	\$3.00
Net Retail Operating Income	\$2,020,300	\$2,020,300	\$2,020,300	\$2,020,300

Table 5. Incremental Cost of Providing MPDUs and WFHUs in Condominium/Retail Development Under CR Zoning (Continued)

	CR2.5, C1.5, R2.0			
	12.5% MPDU 0% WFHUs	12.5% MPDU 10% WFHUs	13.5% MPDU 10% WFHUs	12.5% MPDU 11% WFHUs
Costs				
Site Improvement Costs	\$435,600	\$435,600	\$435,600	\$435,600
Public Use Space Costs	\$249,900	\$249,900	\$249,900	\$249,900
Building Hard Costs	\$26,322,700	\$32,172,200	\$35,096,900	\$32,757,100
Parking Hard Costs	\$9,652,500	\$10,631,250	\$11,205,000	\$10,732,500
Development Approval Process (months)	12	12	12	12
Construction Period (months)	24	24	24	24
Construction Financing (fees & interest)	\$2,954,400	\$3,468,100	\$3,731,200	\$3,519,700
Other Soft Costs (excluding exactions)	\$9,165,200	\$10,872,200	\$11,746,900	\$11,043,800
Tenant Improvements	\$3,267,000	\$3,267,000	\$3,267,000	\$3,267,000
Development Return (% of Net Revenues)	15%	15%	15%	15%
Exactions	\$1,856,100	\$2,166,900	\$2,344,300	\$2,179,700
Total Non-Land Development Costs	\$53,903,400	\$63,263,200	\$68,076,800	\$64,186,300
Residual Land Value Analysis				
Net Operating Income	\$2,020,300	\$2,020,300	\$2,020,300	\$2,020,300
Sales Revenue + Retail Capitalized Value	\$82,467,600	\$97,433,600	\$105,122,700	\$98,699,600
Less Non-Land Devel. Costs & Return	\$62,232,900	\$73,837,600	\$79,504,600	\$74,949,600
Land Residual Value (4)	\$20,234,700	\$23,596,000	\$25,318,100	\$23,750,000
Land Residual per Site SF	\$156	\$217	\$232	\$218
Land Residual per FAR SF	\$103	\$98	\$97	\$97
Incremental Cost of Providing MPDUs and WFHUs				
Total		-\$3,361,300	-\$1,722,100	-\$154,000
Per Unit (5)		-\$19,508	-\$8,958	-\$873
Per GSF (5)		-\$14.03	-\$6.59	-\$0.63
Per Incentive Density SF		-\$77.16	-\$79.07	-\$35.35

Notes: (1) Assumes site location within 1,600 feet of a transit station. Above-ground structure. Assumes 35 percent one-bedroom units and 65 percent two-bedroom units.

(2) Retail parking at 3.5 spaces per 1,000 square feet.

(3) Retail parking revenues calculated at \$1.00 per hour with an average stay of two hours and a daily occupancy of 1.5 per space for developments with structured parking.

(4) Residual value is the amount a developer could pay for the land and still achieve the return required to attract investment.

(5) Calculated as cost per total number of units and total gross square feet.

Source: Partners for Economic Solutions, 2009.

Care Center

Child care centers and daytime adult care centers are an attractive amenity for a development, but they require special loading accommodations and playgrounds. More importantly, their economics do not allow them to pay full market rents for retail spaces. The cost of providing these spaces relates to the inherent rent subsidy required for center feasibility. This incentive allows a 10-percent density bonus for provision of at least 12

slots with at least one-quarter available to the general public. A 20-percent bonus is available for additional benefits such as additional total and/or public slots, a safe drop-off area, and extra recreation facilities. At the minimum level, a 2,000 square-foot child care center which pays a net rent of \$10 per square foot would impose a cost of roughly \$760,000 or \$34.91 per square foot of additional density as shown in Table 6. This estimate makes no allowance for higher rents or occupancy resulting from the provision of on-site child or adult care.

A key factor in the cost of providing the space is the need for a high number of parking spaces. Standard zoning requires roughly 6.5 spaces per 1,000 square feet of space with no allowance for sharing spaces with other uses. However, the Planning Board does have discretion to reduce the number of parking spaces required, particularly if the center is expected to serve the development's residents and/or tenants.

Table 6. Incremental Cost of Providing Care Center and Community Facility in Apartment/Retail Development

	CR2.5, C1.5, R2.0, H70 Zoning		
	No Care or Community Center	2,000-SF Care Center	2,000-SF Community Center
Development Characteristics			
Floor Area Ratio	2.40	2.42	2.42
Site Size (SF)	108,900	108,900	108,900
Public Use Space (SF)	6,534	6,534	6,534
Net Lot Area	102,366	102,366	102,366
Total Base Gross Square Feet	261,360	263,538	263,538
Net Base Building Square Feet	222,156	224,007	224,007
Residential Gross Leaseable Area	178,596	178,447	178,447
Number of Residential Units	192	192	192
Number of Market & MPDU Units	177	177	177
Average Net Square Feet per Unit	1,009	1,008	1,008
MPDUs	23	23	23
Workforce Housing Units	15	15	15
Care Center	-	2,000	-
Community Facility	-	-	2,000
Retail Gross Leaseable Area (0.4 FAR)	43,560	43,560	43,560
Residential Parking Spaces (1)	237	237	237
Retail Parking Spaces (2)	392	392	392
Care Center/Community Center Parking (3)	-	13	5
Operations			
Market Apartment Monthly Rent per Unit	\$2,196	\$2,196	\$2,196
MPDU Monthly Rent per Unit	\$1,396	\$1,396	\$1,396
Workforce Housing Rent per Unit	\$1,659	\$1,659	\$1,659
Retail Rent per SF (triple net)	\$45	\$45	\$45
Occupancy Rate	95%	95%	95%
Apartment Operating Expense per Unit	\$5,000	\$5,000	\$5,000
Care Center Rent (triple net)	\$10	\$10	\$10
Community Facility Expense per SF	\$9	\$9	\$9
Apartment Monthly Parking Rate	\$100	\$100	\$100
Retail Average Daily Parking Fees (4)	\$3.00	\$3.00	\$3.00
Net Operating Income	\$6,083,900	\$6,103,700	\$6,066,700
Costs			
Site Improvement Costs	\$435,600	\$435,600	\$435,600
Public Use Space Costs	\$249,900	\$249,900	\$249,900
Building Hard Costs	\$31,176,500	\$31,486,300	\$31,436,300
Parking Hard Costs	\$18,492,600	\$18,874,800	\$18,639,600
Development Approval Process (months)	12	12	12
Construction Period (months)	24	24	24
Construction Financing (fees & interest)	\$3,984,500	\$4,038,800	\$4,021,200
Other Soft Costs (excluding exactions)	\$12,588,700	\$12,749,200	\$12,690,400
Tenant Improvements (5)	\$3,267,000	\$3,267,000	\$3,367,000
Exactions	\$2,505,900	\$2,506,200	\$2,506,200
Total Non-Land Development Costs	\$72,700,700	\$73,657,800	\$73,346,200



Table 6. Incremental Cost of Providing Care Center and Community Facility in Apartment/Retail Development (Continued)

	CR2.5, C1.5, R2.0, H70 Zoning		
	No Care or Community Center	2,000-SF Care Center	2,000-SF Community Center
Residual Land Value Analysis			
Net Operating Income	\$6,083,900	\$6,103,700	\$6,066,700
Capitalized Value	\$86,912,900	\$87,195,700	\$86,667,100
Less Non-Land Development Costs	\$72,700,700	\$73,657,800	\$73,346,200
Less Return on Investment (9%)	\$6,548,100	\$6,629,200	\$6,601,200
Land Residual Value	\$7,669,100	\$6,908,700	\$6,719,700
Land Residual per Site SF	\$70	\$63	\$62
Land Residual per FAR SF	\$29	\$26	\$25
Incremental Cost of Providing a Care Center or Community Center			
Total		\$760,400	\$949,400
Per Unit		\$3,959	\$4,943
Per GSF		\$2.89	\$3.60
Per Incentive Density SF		\$34.91	\$43.59

Notes: (1) Assumes site location within 1,600 feet of a transit station. Above-ground structure. Assumes 35 percent one-bedroom units and 65 percent two-bedroom units.

(2) Assumes 20 percent restaurant and 80 percent general retail. Adjusted for shared use.

(3) Care center parking based on one space per six children plus one space per staff. Assumes 50 square feet per child and one staff person per six children. Community facility requires 2.5 spaces per 1,000 square feet.

(4) Retail parking revenues calculated at \$1.00 per hour with an average stay of two hours and a daily occupancy of 1.5 per space for developments with structured parking.

(5) Includes \$50 per square foot in tenant improvements for the care center and community center.

Source: Partners for Economic Solutions, 2009.

Community Facility

This incentive encourages provision of a community facility recommended in the sector plan that helps meet the needs of residents or workers and is accepted for operation and use by an appropriate public or non-profit organization. Assuming that the community facility would pay no rent or expenses, the cost of providing a 2,000 square-foot space would equal roughly \$949,000 or \$43.59 per square foot of the additional 10-percent bonus density. (See Table 6 above.) The maximum 20-percent bonus requires design and/or other provisions without enough specificity to allow costing.

Local Retail Preservation

A 10-percent incentive density is provided for preservation of one to two small businesses with a 20-percent incentive density for preservation of three or more small businesses. The economics of this requirement will depend very much on the specific situation with each small business preserved, including its size and any special facility requirements. The

biggest cost is likely to come in the form of accepting a lower rent than might be achieved by renting in the open market. It is not possible to estimate these costs reliably without the project specifics.

Unit Mix and Size

This incentive provides a 10-percent density bonus for creating residential buildings that include at least 7.5 percent efficiency units and 5 percent three-bedroom units. The 20-percent density bonus requires at least 10 percent efficiencies and 7.5 percent three-bedroom units. It is intended to increase the diversity of housing products offered and the types of households that can be accommodated in new developments. Most residential apartment buildings will include efficiency, one- and two-bedroom units; few offer three-bedroom units, particularly in a high-rise configuration. Condominium developments typically limit the number of efficiencies due to lower market demand for a long-term commitment to a small unit. Many offer two-bedroom units with a den, so three-bedroom units could be attractive in the market to households seeking space for a home office. The supportable rents and prices for large units are typically lower on a per-square-foot basis than are those for smaller units. The ultimate impact depends upon the differential pricing by unit size and the unit sizes. Shown in Table 7, the impact of the differential pricing under one scenario is a net gain in profitability.

Table 7. Impact of Unit Mix Requirement on Condos with CR2.5 Zoning

	Market Mix (1)	Unit Mix - Minimum Incentive (2)	Unit Mix - Maximum Incentive (3)
Development Characteristics			
Floor Area Ratio	2.4	2.4	2.4
Site Size (SF)	108,900	108,900	108,900
Public Use Space (SF)	6,534	6,534	6,534
Net Lot Area	102,366	102,366	102,366
Total Gross Square Feet Including Bonus	261,360	261,360	261,360
Total Base Gross Square Feet	261,360	261,360	261,360
Bonus Density for Workforce Units	-	-	-
Net Base Building Square Feet	222,156	222,156	222,156
Residential Gross Leaseable Area	178,596	178,596	178,596
Number of Residential Units	192	195	196
Number of Market & MPDU Units	177	180	181
Average Net Square Feet per Unit	930	916	911
MPDUs	23	23	23
Workforce Housing Units	15	15	15
Retail Gross Leaseable Area (0.4 FAR)	43,560	43,560	43,560
Office Gross Leaseable Area	-	-	-
Care Center Square Feet	-	-	-
Residential Parking Spaces (4)	181	184	185
Office Parking Spaces	-	-	-
Retail Parking Spaces (5)	152	152	152
Less Spaces Replaced by Shared Car Spaces	(14)	(14)	(14)
Total Parking Spaces	319	322	323
Sales & Operations			
Market Sale Price per Square Foot	\$475	\$475	\$475
MPDU Sale Price per Unit	\$220,100	\$220,100	\$220,100
Workforce Sale Price per Unit	\$298,400	\$297,200	\$296,800
Cost of Sale	7.0%	7.0%	7.0%
Condo Parking Sale Price	\$40,000	\$40,000	\$40,000
Net Sales Proceeds	\$79,143,400	\$80,476,000	\$80,920,200
Office Rent per SF (full service)	\$40	\$40	\$40
Office Operating Expenses per SF	\$9	\$9	\$9
Retail Rent per SP (triple net)	\$45	\$45	\$45
Commercial Occupancy Rate	95%	95%	95%
Monthly Office Parking Rate	\$100	\$100	\$100
Hourly Retail Parking Rate	\$1	\$1	\$1
Retail Average Parking Hours	2.0	2.0	2.0
Daily Turns on Retail Spaces	1.5	1.5	1.5
Retail Average Daily Parking Fees (6)	\$3.00	\$3.00	\$3.00
Net Commercial Operating Income	\$2,004,300	\$2,004,300	\$2,004,300

Table 7. Impact of Unit Mix Requirement on Condos with CR2.5 Zoning (Continued)

	Market Mix (1)	Unit Mix - Minimum Incentive (2)	Unit Mix - Maximum Incentive (3)
Costs			
Site Improvement Costs	\$435,600	\$435,600	\$435,600
Public Use Space Costs	\$249,900	\$249,900	\$249,900
Building Hard Costs (7)	\$38,844,600	\$38,844,600	\$38,844,600
Amenity Costs	\$0	\$0	\$0
Parking Hard Costs	\$10,722,600	\$10,819,200	\$10,851,400
Development Approval Process (months)	12	12	12
Construction Period (months)	24	24	24
Construction Financing (fees & interest)	\$3,976,900	\$3,984,100	\$3,986,600
Other Soft Costs (excluding exactions)	\$12,563,200	\$12,587,300	\$12,595,400
Tenant Improvements	\$3,267,000	\$3,267,000	\$3,267,000
Development Return (% of Net Condo Revenues)	15%	15%	15%
Exactions	\$2,505,900	\$2,546,800	\$2,560,400
Total Non-Land Development Costs	\$72,565,700	\$72,734,500	\$72,790,900
Residual Land Value Analysis			
Net Operating Income	\$2,004,300	\$2,004,300	\$2,004,300
Sales Revenue + Commercial Capitalized Value	\$105,867,400	\$107,200,000	\$107,644,200
Less Non-Land Devel. Costs & Return	\$84,437,200	\$84,805,900	\$84,928,900
Land Residual Value	\$21,430,200	\$22,394,100	\$22,715,300
Land Value per Site SF	\$197	\$206	\$209
Land Value per FAR SF	\$82	\$86	\$87
Incremental Cost of Providing Unit Mix			
Total		-\$968,900	-\$1,286,100
Per Unit		-\$4,943	-\$6,557
Per GSF		-\$3.69	-\$4.92
Per Incentive Density SF		-\$44.26	-\$29.50

Notes: (1) "Market Mix" assumes 35 percent one-bedroom units and 65 percent two-bedroom units.

(2) Minimum Incentive assumes 7.5 percent efficiency units, 29 percent one-bedroom units, 58.5 percent two-bedroom units and 5 percent three-bedroom units.

(3) Maximum Incentive assumes 10 percent efficiency units, 27 percent one-bedroom units, 55.5 percent two-bedroom units and 7.55 percent three-bedroom units.

(4) Assumes site location within 1,600 feet of a transit station. Above-ground structure.

(5) Assumes 20 percent restaurant and 80 percent general retail. Adjusted for shared use.

(6) Retail parking revenues calculated at \$1,000 per hour with an average stay of two hours and a daily occupancy of 1.5 per space.

(7) Includes incremental costs for podium/tower setback and LEED rating.

Sources: Partners for Economic Solutions, 2009.

However, a unit mix not currently supported by the market could adversely impact the project's lease-up or sales. Maintaining an inventory of unsold units for an extra year creates significant costs and risks.

Design Incentives

The design incentives encourage development of quality architecture in accordance with the design themes developed in the White Flint Sector Plan.

Floor Plate Size

Creating towers with smaller floor plates is intended to minimize their impact on views and shadows. The minimum incentive density increase of 10 percent requires that the floor area of any floor above the height of 120 feet "not exceed 10,000 square feet for residential uses, 19,000 square feet of non-residential uses, or 12,000 square feet of mixed-uses" and the exteriors of those floors must be 60-percent glass. This floor plate restriction increases the cost of providing perimeter walls relative to the total cost, estimated at \$2 per FAR square foot. This indicates a cost of \$25 per square foot of additional incentive density. The maximum incentive requires additional benefits that are not susceptible to accurate cost estimating.

This provision is very difficult to use in the CR2.5, C1.5, R2.0, H70 zone. The height limit constrains the ability to focus tower development into small floor plate buildings that still retain sufficient light and air. Forcing parking underground would be a very expensive approach to mitigating that impact of that floor plate requirement.

Another issue is the potential loss in building efficiency. The lobby space, which cannot be leased to residential tenants, becomes a higher proportion of the total building space when developed in multiple buildings as a result of limiting the floor plate size in a zone restricted to lower heights.

Historic Resource Protection

Protection of a historic resource designated in the Master Plan of Historic Preservation according to a preservation plan approved by the Historic Preservation Commission is required to achieve the 10-percent incentive density. Provision of other benefits is required to achieve the 20-percent incentive density. The costs associated with this incentive depend entirely upon the nature of the specific historic resource and the preservation approach. No cost estimate is provided for this incentive.

Podium/Tower Setback

This incentive requires that a tower be set back from the first floor building frontage least six feet at or below 72 feet in height for a five-percent incentive density. The maximum 10-percent increase requires that the tower setback start at or below 50 feet with a setback of at least 12 feet. The cost of meeting this requirement is estimated at \$0.75 per FAR square

foot. That translates into an average cost of \$15 per square foot of incentive density achieved at the minimum level.

Public Art

Enhancing the project with public art or paying a fee-in-lieu for public art qualifies a project for an incentive density of 5 to 20 percent. A fee equal to one percent of the development's project cost (assumed to be defined as non-land hard costs) provides a five-percent credit while a four-percent fee-in-lieu qualifies for a 20-percent incentive density. This analysis assumes that the direct investment in public art would be held to similar investment standards. This translates into a cost of \$27.50 per square foot of incentive density.

Public Plaza/Open Space

The incentive allows a 5- to 10-percent incentive density for development of a public plaza accessible to the street, though no size requirement is imposed other than that the space must be in addition to any required public use space. The maximum incentive requires a plaza width of at least 50 feet and appropriate furnishings with facing walls of non-residential buildings having windows on at least 60 percent of the façade below 40 feet. This analysis assumes provision of a 2,500 square-foot plaza with an average cost of \$50 per square foot. At the minimum incentive density, this represents an average cost of \$11.48 per square foot of bonus density, not considering any impact on the building and parking configuration.

Streetscape, Off-Site

The incentive rewards streetscape improvements that "enhance the pedestrian experience and better connect buildings to the public spaces." The minimum five-percent incentive density requires improvements equal to 18 percent of the net lot. Improvements equivalent to 36 percent of the net lot area qualify for the maximum 10-percent incentive density. At an average cost of \$37 per square foot for a brick walkway with trees and associated improvements, off-site streetscape for a 2.5-acre site would cost \$650,000 to \$1,300,000. That is equivalent to \$60.48 per square foot of incentive density.

Wow Factor

To encourage excellence in architectural design, this incentive provides a 10- to 20-percent incentive density for creating innovative solutions to architectural context; creating a landmark; enhancing the public realm; adding to the diversity of the built realm; using design solutions to make "compact/infill living, working, and shopping environments pleasurable and desirable; and/or integrating environmentally sustainable solutions. Because these requirements have no distinct measures, it is not possible to accurately estimate the associated costs of compliance.

In addition, the incremental cost associated with achieving the Wow factor may be difficult to distinguish from the costs associated with satisfying the requirements associated with other CR Zone design incentives or with appealing to certain market segments. For example, the Wow factor is most likely to be used in association with trophy class office buildings and luxury residences, which to some degree already require a higher quality design.

Environment Incentives

This category of incentives focusing on sustainable and environmentally responsible solutions that reduce energy usage, provide green space, preserve agricultural land and reduce environmental impacts of development.

Bio-Retention and Stormwater Recharge

The use of bio-retention and recharge facilities to contain the stormwater outfall for a 10-year event and recharge it on site or within one-quarter mile of the site qualifies for a five-percent incentive density. A 10-percent incentive density is available for containing and recharging 50 percent of the projected stormwater. A. Morton Thomas and Associates estimated the cost of collecting rainwater in a bio-retention basin after pretreatment in a stone trench (3' deep by 2' by 10'). The bio-retention basin would store 1 foot of water on top with 3 feet of filter bed (sandy topsoil), 6 inches of sand and 2.5 feet of stone storage for groundwater recharge in accordance with the Maryland Department of the Environment (MDE) "Stormwater Design Manual". Capturing 25 percent of the runoff would cost \$7,400 per 1,000 square feet of impervious surface with the cost increasing to \$12,000 to capture 50 percent. For a 2.5-acre site, the total costs would range from \$725,000 to \$1,176,000 (assuming 90-percent of the site would be impervious) for a cost of \$54.00 to \$66.60 per square foot of incentive density.

Conveyed Parkland

Dedication of land for parkland, trail area or other master-planned parks' use qualifies for a 10- to 20-percent incentive density for property equivalent to 15 to 30 percent of the gross lot area. The cost of that land depends on its location, zoning and developability. This analysis assumes an average cost of \$50 per square foot or a total cost of \$817,000 to \$1,634,000 for a 2.5-acre development site. That translates into \$37.50 per square foot of incentive density.

Dark Skies

Dark skies-compliant projects built and maintained in conformance with the standards of the International Dark-Sky Association qualify for a five-percent incentive density. The maximum 10-percent incentive density also requires that the exterior lighting plan be integrated into an energy efficiency plan for the entire property. Meeting the dark skies

requirement entails both shielding of exterior lights and a building-wide system to extinguish interior lights at night. For any “smart” building with centralized controls, the cost of meeting these requirements is negligible. The cost of compliance is relatively small when designed into the development from the beginning. The incremental cost is estimated at \$0.23 per square foot of incentive density. The key issue constraining use of this incentive is ensuring that tenants are and feel secure with different lighting arrangements. For some buildings, the dark skies incentive also would require foregoing up-lighting often used to highlight architectural features.

Energy Efficiency and Generation

Incentive densities of 10 to 20 percent are provided for the use of on-site renewable energy generation. New development must meet the “minimum efficiency standards of 17.5 percent for new buildings” and/or generate at least 1.5 percent of their energy cost on site for the minimum incentive. At the maximum, the project must provide additional benefits and generate at least 2.5 percent of energy cost on site. Solar roofs cost \$8,000 to \$10,000 per kilowatt. Typically, photovoltaics are a relatively expensive investment, depending on energy prices, so that most developers seek to use other less costly methods to achieve energy efficiencies and cost savings. The low thresholds for this incentive (1.5 to 2.5 percent of total energy) result in a cost of \$1.84 to \$2.20 per square foot of incentive density.

Green Walls

A green wall must cover a minimum of 30 percent of a south or west blank wall or parking garage facing a street or plaza and enhance the project’s aesthetics and sustainability for the minimum five-percent incentive density. To achieve the maximum 10-percent incentive density, it must provide additional benefits. At the minimum level, the green wall itself is likely to cost about \$8 per square foot or \$29,000 for a 3,600 square-foot wall – \$2.64 per square foot of incentive density.

LEED Rating

The CR zoning rewards environmentally sustainable buildings certified by the Leadership in Energy and Environmental Design (LEED) Green Building Rating System of the U.S. Green Building Council. Under the Green Building regulations, Montgomery County requires all new private buildings of 10,000 square feet or more to be LEED-certified. This incentive provides a 10-percent density bonus for a LEED Silver certification, 20 percent for LEED Gold and 30 percent for LEED Platinum. The cost of achieving these certification levels varies widely depending on the location, use, site characteristics and the choice of which points to pursue in the LEED certification process. Extensive research¹ on development costs suggests that the incremental cost of achieving LEED Silver certification

¹ Lisa Matthiessen, Peter Morris and Davis Langdon, “The Cost of Green Revisited: Reexamining the Feasibility and Cost Impact of Sustainable Design in the Light of Increased Market Adoption, 2007,

as compared with traditional development is 1-2 percent, noting that many projects have no or very low cost premiums and some have larger premiums up to 10 percent. Presumably, the incremental cost of advancing from LEED certification to LEED Silver would be even smaller. This analysis assumes a 0.5-percent cost premium to reach LEED Silver or roughly \$1.60 per gross square foot. A 0.5-percent premium translates into an estimated \$20 per square foot of incentive density at the minimum level. Some of that cost burden would be eliminated by the market rent and price premium resulting from the designation as a green building as well as the long-term operating cost savings. Only anecdotal evidence is available as to the likely cost premium for LEED Gold or LEED Platinum. For this analysis, the incremental cost of moving from LEED certified to LEED Gold is estimated at 4.0 percent with the incremental cost of achieving LEED Platinum at 10.0 percent. Those incremental costs equate to \$80 to \$133 per square foot of incentive density. As noted earlier, however, developers of major new projects are already adopting green building techniques in response to market demand and are required to develop to LEED certified or equivalent under existing County legislation, so the incremental costs are negligible for many.

Rainwater Reuse

This provision provides a minimum five-percent incentive density for collection of 25 percent of projected rainwater for a 10-year event and reuse for on-site irrigation, grey-water use or filtration for reuse. Collection and reuse of 50 percent of the projected rainwater would result in the maximum 10-percent incentive density. Rainwater from impervious surfaces would be collected in an underground storage structure and pumped to supply water for an irrigation system. The system would cost \$4,800 per 1,000 square feet of impervious surface to collect 25 percent of projected rainwater and \$7,400 to collect 50 percent. This is equivalent to \$33 to \$43 per square foot of incentive density.

Transferable Development Rights

To encourage preservation of agricultural land, the CR zoning provides incentives for transferable development rights (TDRs). The TDRs must be purchased in groups of 10 and executed and recorded. The incentive density increase is 10 percent for every 10 TDRs to a maximum of 30 percent. TDR pricing varies with market supply and demand. Historically, the value of TDRs has varied between \$11,000 and \$40,000. Assuming a cost of \$20,000 per TDR, the cost of 10 TDRs would be \$200,000, or \$9.18 per incentive density square foot.

Tree Canopy

Providing tree canopy coverage of at least 25 percent of the on-site open space at 15 years growth qualifies a project for the minimum 10-percent incentive density. The 20-percent incentive density is available with coverage of at least 50 percent of the on-site open space. Given an average cost of \$400 per tree, this is equivalent to \$0.03 per square foot of incentive density.

Vegetated Area

This incentive requires vegetated area in addition to any required on-site open space or any vegetated roof incentive and must replace at least 5,000 square feet of impervious area with a minimum of 12 inches of soil depth and well-maintained vegetation for a five-percent incentive density. The maximum incentive density increase is provided for larger area, greater soil depth or other additional benefits. Vegetated area development costs an estimated \$5,730 per 1,000 square feet or \$2.63 per square foot of incentive density.

Vegetated Roof

A 10- to 20-percent incentive density bonus is awarded for a vegetated roof that covers a minimum of 33 percent of the building roof with a soil depth of at least four inches. The maximum increase requires coverage of a minimum of 60 percent of the roof area. At an average cost of \$7 per square foot of roof area for a roof structure(s) that covers 80 percent of the 2.5-acre site, the cost would range from \$8.40 to \$9.24 per square foot of incentive density.

Building Lot Termination Incentive

This incentive allows the purchase of building lot termination (BLT) easements to qualify for one-half of the incentive density increase. BLTs must be purchased at the rate of 12.5 percent of the incentive density FAR with an assumed price of \$200,000 per BLT. One BLT is required for each 7,500 square feet of non-residential floor area and each 9,000 square feet of residential floor area. For a 2.5-acre site developed at a 2.5 FAR with 228,000 square feet of residential uses and 44,000 square feet of retail uses, a project would require 3.12 BLTs for a total cost of \$624,000 or \$5.73 per incentive density square foot.

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Establishment
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Public Hearing:
Adopted:
Effective:

**COUNTY COUNCIL FOR MONTGOMERY COUNTY, MARYLAND
SITTING AS THE DISTRICT COUNCIL FOR THAT PORTION OF
THE MARYLAND-WASHINGTON REGIONAL DISTRICT WITHIN
MONTGOMERY COUNTY, MARYLAND**

By: District Council at Request of the Planning Board

AN AMENDMENT to the Montgomery County Zoning Ordinance to:

- Establish Commercial/Residential (CR) zones; and
- Establish the intent, allowed land uses, development methods, general requirements, development standards, density incentives, and approval procedures for development under the Commercial/Residential zones.

By adding the following Division to the Montgomery County Zoning Ordinance, Chapter 59 of the Montgomery County Code:

DIVISION 59-C-15 "COMMERCIAL/RESIDENTIAL ZONES"
Sections 59-C-15.1 through 59-C-15.9

EXPLANATION: **Boldface** indicates a heading or a defined term.
Underlining indicates text that is added to existing laws by the original text amendment.
[Single boldface brackets] indicate text that is deleted from existing law by the original text amendment.
Double underlining indicates text that is added to the text amendment by amendment.
[[Double boldface brackets]] indicate text that is deleted from the text amendment by amendment.
* * * indicates existing law unaffected by the text amendment.

OPINION

ORDINANCE

The County Council for Montgomery County, Maryland, sitting as the District Council for that portion of the Maryland-Washington Regional District in Montgomery County, Maryland, approves the following ordinance:

1 **Sec. 1. Division 59-C-15 is added as follows:**

2 * * *

3 **DIVISION 59-C-15. COMMERCIAL/RESIDENTIAL (CR) ZONES**

4
5 **59-C-15.1. Zones Established.**

6 **59-C-15.11.** The Commercial/Residential (CR) zones are established as
7 combinations of a sequence of four factors: maximum total floor area ratio
8 (FAR), maximum non-residential FAR, maximum residential FAR, and
9 maximum building height. These zones are identified by a sequence of
10 symbols: CR, C, R, and H, each followed by a number where:

- 11 a) the number following the symbol “CR-“ is the maximum total FAR;
12 b) the number following the symbol “C” is the maximum non-residential
13 FAR;
14 c) the number following the symbol “R” is the maximum residential
15 FAR; and
16 d) the number following the symbol “H” is the maximum building
17 height in feet.

18 The examples in this Division do not add, delete, or modify any provision of
19 this Division. Examples are provided only to demonstrate particular
20 applications of the provisions in the Division. Examples are not intended to
21 limit the provisions.

22 **59-C-15.12.** Each unique sequence of CR, C, R, and H is established as a
23 zone under the following limits:

- 24 a) the maximum total FAR must be established as an increment of 0.25
25 from 0.5 up to 8.0;
26 b) the maximum non-residential and residential FAR must be
27 established as an increment of 0.25 from 0.25 up to 7.5;

- 28 c) the maximum height must be established as an increment of 5 feet up
29 to 100 feet and an increment of 10 feet from 100 feet up to 300 feet;
30 and
- 31 d) permitted density may be averaged over 2 or more directly abutting or
32 confronting lots in the same CR zone, provided that:
- 33 1) the lots are subject to the same sketch plan;
 - 34 2) the lots are created by the same preliminary subdivision plan;
 - 35 3) the maximum total density and nonresidential and residential
36 density limits apply to the entire development subject to the
37 sketch plan and subdivision plan, not to individual lots;
 - 38 4) no building may exceed the maximum height set by the zone;
 - 39 5) public benefits must be provided in proportion to any phased
40 development on individual lots; and
 - 41 6) the resulting development must conform to the design and land
42 use objectives of the applicable master or sector plan and
43 design guidelines.

44 **59-C-15.13.** The CR zones can only be applied by sectional map
45 amendment in conformance with the zoning recommendations of an
46 approved and adopted master or sector plan.

47 Examples:

- 48 • An area zoned CR-2.0, C1.0, R1.0, H80 allows a total FAR of 2.0, with maximum non-
49 residential and residential FARs of 1.0, thereby requiring an equal mix of uses to obtain
50 the total FAR allowed. The height for any building in this zone is limited to 80 feet.
- 51 • An area zoned CR-6.0, C3.0, R5.0, H200 allows a residential FAR up to of 5.0, whereas
52 non-residential density is only allowed an FAR of up to 3.0, and a mix of the two uses
53 could yield a total FAR of 6.0. This combination allows for flexibility in the market and
54 shifts in the surrounding context. The height for any building in this zone is limited to
55 200 feet.

- An area zoned CR-4.0, C4.0, R4.0, H160 allows the ultimate flexibility in the mix of uses, even buildings with no mix, because the maximum allowed non-residential and residential FARs are both equivalent to the total maximum FAR allowed. The height for any building in this zone is limited to 160 feet.

59-C-15.2. Description and Objectives of the CR Zones.

The CR zones permit a mix of residential and non-residential uses at varying densities and heights. The zones promote economically, environmentally, and socially sustainable development patterns where people can live, work, and have access to services and amenities while minimizing the need for automobile use.

CR zones are appropriate where ecological impacts can be moderated by co-locating housing, jobs, and services. The objectives of the CR zones are to:

- implement the policy recommendations of applicable master and sector plans;
- target opportunities for redevelopment of single-use areas and surface parking lots with a mix of uses;
- reduce dependence on the automobile by encouraging development that integrates a combination of housing types, mobility options, commercial services, and public facilities and amenities;
- encourage an appropriate balance of employment and housing opportunities and compatible relationships with adjoining neighborhoods;
- establish the maximum density and building height for each zone, while retaining appropriate development flexibility within those limits; and
- standardize optional method development by establishing minimum requirements for the provision of the public benefits that will support and accommodate density above the standard method limit.

59-C-15.3. Definitions Specific to the CR Zones.

84 The following words and phrases, as used in this Division, have the meaning
85 indicated. The definitions in Division 59-A-2 otherwise apply.

86 **Car share space:** a parking space that serves as the location of an in-service
87 vehicle used by a vehicle-sharing service.

88 **Cultural institutions:** public or private institutions or businesses including: art,
89 music, and photographic studios; auditoriums or convention halls; libraries and
90 museums; recreational or entertainment establishments, commercial; theater,
91 indoor; theater, legitimate.

92 **Day care facilities and centers:** facilities and centers that provide daytime care
93 for children and/or adults, including: child daycare facility (family day care,
94 group day care, child day care center); daycare facility for not more than 4
95 senior adults and persons with disabilities; and day care facility for senior
96 adults and persons with disabilities.

97 **Frontage:** a property line shared with an existing or master-planned public or
98 private road, street, highway, or alley right-of-way or easement boundary.

99 **LEED:** the series of Leadership in Energy and Environmental Design (LEED)
100 rating systems developed by the Green Building Council as amended.

101 **Locally-owned small business:** a commercial business that:

- 102 **a)** is majority-owned by a resident of Montgomery County or any
103 adjacent jurisdiction; and
- 104 **b)** meets the size standards as determined by the Small Business
105 Administration's Table of Small Business Size Standards (SBA Table)
106 or is a franchised company with total holdings by the local-owner that
107 meets the size standards of the Table.

108 **Live/Work unit:** Buildings or spaces within buildings that are used jointly for
109 commercial and residential purposes where the residential use of the space is
110 secondary or accessory to the primary use as a place of work.

111 **Manufacturing and production, artisan:** The manufacture and production of
112 commercial goods by a skilled manual worker or craftsman, such as jewelry,
113 metalwork, cabinetry, stained glass, textiles, ceramics, or hand-made food
114 products.

115 **Priority retail street frontage:** Frontage along a right-of-way identified in a
116 master or sector plan to be developed with street-oriented retail to encourage
117 pedestrian activity.

118 **Public Arts Trust Steering Committee:** A committee of the Arts and Humanities
119 Council that allocates funds from the Public Arts Trust.

120 **Public owned or operated uses:** Activities that are located on land owned by or
121 leased and developed or operated by a local, county, state, or federal body or
122 agency.

123 **Recreational facilities, participatory, indoor:** Facilities used for indoor sports
124 or recreation. Spectators would be incidental on a nonrecurring basis. Such
125 uses typically include bowling alleys, billiard parlors, indoor tennis and
126 handball courts, and health clubs.

127 **Recreational facilities, participatory, outdoor:** Facilities used for outdoor
128 sports or recreation. Spectators would be incidental on a nonrecurring basis.
129 Such uses typically include driving ranges, miniature golf courses, swimming
130 pools, and outdoor ice skating rinks.

131 **Seasonal Outdoor Sales:** A lot or parcel where a use or product is offered
132 annually for a limited period of time during the same calendar period each year.

133 The availability or demand for the use or product is related to the calendar
 134 period, such as Christmas trees, pumpkin patches, or corn mazes.

135 **Transit proximity:** Level 1 proximity is based on the location of a project with
 136 access to an existing or planned Metrorail Station. Level 2 proximity is based
 137 on the location of a project with access to an existing or planned MARC
 138 Station, light rail station, or a stop along a transportation corridor with fixed
 139 route bus service where service intervals are no longer than 15 minutes during
 140 peak commute hours. A project adjacent or confronting a transit station or stop
 141 shares a property line, easement line, or is only separated by a right-of-way
 142 from a transit station or stop. In addition to a project that is adjacent or
 143 confronting, a project is also considered to have access to a transit facility if all
 144 parcels and lots within the project's gross tract area have no more than 25
 145 percent of their area farther than the applicable distance from the transit station
 146 or stop and if not more than 10 percent of the residential units in the project are
 147 farther than the applicable distance from the station or stop. A planned transit
 148 station or stop must be funded for construction within the first 4 years of the
 149 Consolidated Transportation Program or the Capital Improvement Program. If
 150 a project qualifies for more than one transit proximity level, the project may
 151 only take incentive density for one of the qualifying benefits.

152 **59-C-15.4. Methods of Development and Approval Procedures.**

153 Two methods of development are available under the CR zones.

154 **59-C-15.41. Standard Method.**

155 Standard method development must comply with the general requirements
 156 and development standards of the CR zones. A site plan approval under
 157 Division 59-D-3 is required for a standard method development project only
 158 if:

- 159 a) the gross floor area exceeds 10,000 square feet;
160 b) any building or group of buildings contains 10 or more dwelling
161 units; or
162 c) the proposed development generates 30 or more new peak-hour trips.

163 **59-C-15.42. Optional Method.**

164 Optional method development must comply with the general requirements
165 and development standards of the CR zones and must provide public
166 benefits under Section 59-C-15.8 to obtain the full densities and height
167 allowed by the zone. A sketch plan and site plan are required for any
168 development using the optional method. A sketch plan must be filed under
169 the provisions below; a site plan must be filed under Division 59-D-3. Any
170 required preliminary subdivision plan must be submitted concurrently with
171 the site plan.

- 172 a) Contents of a sketch plan:
173 1) justification statement for optional method development
174 addressing the requirements and standards of this Division,
175 how the development will further the objectives of the
176 applicable master or sector plan, and how the development will
177 be more efficient and effective than the standard method of
178 development;
179 2) total FAR, conceptual uses and maximum densities per use;
180 3) building massing, height, public use and other open spaces, and
181 the relationship of proposed buildings to adjacent buildings;
182 4) general vehicular, pedestrian, and cyclist circulation and
183 access;

- 184 5) table of proposed public benefits and incentive density
185 requested for each benefit; and
186 6) general phasing of structures, uses, public benefits, and site
187 plans.
- 188 b) Procedure for a sketch plan:
- 189 1) Before filing a sketch plan application, an applicant must
190 comply with the provisions of Section 4 of the Manual for
191 Development Review Procedures for Montgomery County, as
192 amended, that concern the following procedures:
- 193 (a) notice;
194 (b) holding a public meeting; and
195 (c) posting the site of the submission.
- 196 2) The submittal, review procedure, and fees for a sketch plan are
197 the same as a pre-application submission under Section 50-
198 33A(a), except that there is no requirement to submit a
199 preliminary subdivision plan within 90 days.
- 200 3) The Planning Board may require some elements of the sketch
201 plan to be binding on any subsequent site plans.

202 **59-C-15.5. Land Uses.**

203 No use is allowed in the CR zones except as indicated below:

- 204 - Permitted Uses are designated by the letter “P” and are permitted
205 subject to all applicable regulations.
- 206 - Special Exception Uses are designated by the letters “SE” and may be
207 authorized as special exceptions under Article 59-G.

a) Agricultural	
Farm and country markets	P
Farm, limited to crops, vegetables, herbs, and ornamental plants	P
Nursery, horticultural – retail or wholesale	P
Seasonal outdoor sales	P
b) Residential	
Dwellings	P
Group homes, small or large	P
Hospice care facilities	P
Housing and related facilities for senior adults or persons with disabilities	P
Life care facilities	P
Live/Work units	P
Personal living quarters	P
c) Commercial Sales and Service	
Advanced technology and biotechnology	P
Ambulance or rescue squads	P
Animal boarding places	SE
Automobile filling stations	SE
Automobile rental services, excluding storage of vehicles and supplies	P
Automobile repair and services	P
Automobile sales, indoors and outdoors	P
Clinic	P
Conference centers	P
Eating and drinking establishments	P
Health clubs and gyms	P
Home occupations, major	SE
Home occupations, registered and no-impact	P
Hotels and motels	P
Laboratories	P
Dry cleaning and laundry pick-up stations	P
Offices, general	P
Recreational facilities, participatory, indoor	P
Recreational facilities, participatory, outdoor	SE
Research, development, and related activities	P
Retail trades, businesses, and services of a general commercial nature	P
Self-storage facilities	SE
Veterinary hospitals and offices without boarding facilities	P
Warehousing, not including self-storage, less than 10,000 square feet	P
d) Institutional & Civic	
Charitable and philanthropic institutions	P
Cultural institutions	P

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<u>Day care facilities and centers</u>	<u>P</u>
<u>Educational institutions, private</u>	<u>P</u>
<u>Hospitals</u>	<u>P</u>
<u>Parks and playgrounds, private</u>	<u>P</u>
<u>Private clubs and service organizations</u>	<u>P</u>
<u>Publicly owned or publicly operated uses</u>	<u>P</u>
<u>Religious institutions</u>	<u>P</u>
e) Industrial	
<u>Manufacturing and production, artisan</u>	<u>P</u>
<u>Manufacturing, compounding, processing, or packaging of cosmetics, drugs, perfumes, pharmaceuticals, toiletries, and projects resulting from biotechnical and biogenetic research and development</u>	<u>P</u>
<u>Manufacturing and assembly of medical, scientific, or technical instruments, devices, and equipment</u>	<u>P</u>
f) Other	
<u>Accessory buildings and uses</u>	<u>P</u>
<u>Bus terminals, no-public</u>	<u>P</u>
<u>Parking garages, automobile</u>	<u>P</u>
<u>Public utility buildings, structures, and underground facilities</u>	<u>P</u>
<u>Radio and television broadcast studios</u>	<u>P</u>
<u>Rooftop mounted antennas and related unmanned equipment buildings, cabinets, or rooms</u>	<u>P</u>

209 **59-C-15.6. General Requirements.**

210 Development in the CR zone must comply with the following requirements.

211 **59-C-15.61. Master Plan and Design Guidelines Conformance.**

212 Development that requires a site plan must be consistent with the applicable
213 master or sector plan and any design guidelines adopted by the Planning
214 Board.

215 **59-C-15.62. Priority Retail Street Frontages.**

216 Development that requires a site plan and is located on a street identified as
217 a priority retail street frontage must provide the following:

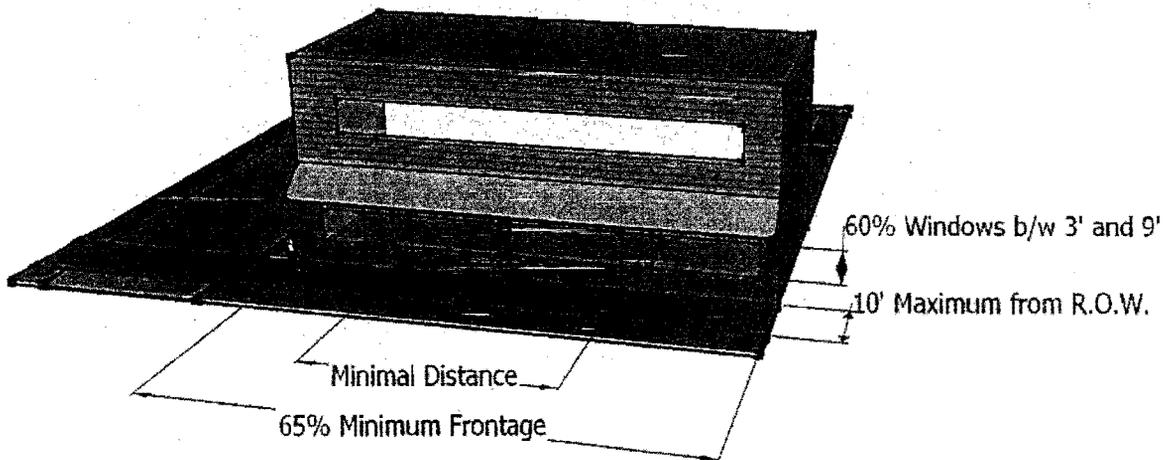
- 218 a) on-street parallel parking, unless specifically denied by the agency
219 maintaining the right-of-way;
- 220 b) majority of display windows and entrances arranged between zero
221 and 45 degrees to the sidewalk;



- 222 c) shop entrances spaced at minimal distances in order to activate the
- 223 street;
- 224 d) building façade along at least 65 percent of the aggregate length of
- 225 the front street right-of-way;
- 226 e) front building wall no farther than 10 feet from the public right-of-
- 227 way or 5 feet if no public utility/improvement easement (PUE or PIE)
- 228 is required; and
- 229 f) windows or glass doors on 60 percent of the building façade between
- 230 3 and 9 feet above sidewalk grade.

231 These provisions may be modified or waived by the Planning Board during
232 the review of a site plan if found to be unreasonably burdensome to a
233 proposed development due to conditions such as unusual lot size,
234 topography, limited frontage, or other atypical circumstance.

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Priority Retail Building Requirements Illustrative

239 **59-C-15.63. Streetscape.**

240 Streetscape improvements must be consistent with the recommendations of
 241 the applicable master or sector plan.

242 **59-C-15.64. Bicycle Parking Spaces and Commuter Shower/Change**
 243 **Facility.**

- 244 a) Bicycle parking facilities must be free of charge, secure, and
 245 accessible to all residents or employees of the proposed development.
 246 b) The number of bicycle parking spaces and shower/change facilities
 247 required is shown in the following table (calculations must be
 248 rounded to the higher whole number):

<u>Bicycle and Shower/Change Facilities Required</u>	
<u>Use</u>	<u>Requirement</u>
<u>Residential</u>	
<u>In a building containing less than 20 dwelling units.</u>	<u>At least 4 bicycle parking spaces.</u>
<u>In a building containing 20 or more dwelling units.</u>	<u>At least 0.5 bicycle parking spaces per dwelling unit, not to be less than 4 spaces and up to a maximum of 100 required spaces.</u>
<u>In any group living arrangement expressly for senior citizens.</u>	<u>At least 0.1 bicycle parking spaces per unit, not to be less than 2 spaces up to a maximum of 100 required spaces.</u>
<u>Non-Residential</u>	
<u>In a building with a total non-residential floor area of 1,000 to 9,999 square feet.</u>	<u>At least 2 bicycle parking spaces.</u>
<u>In a building with a total non-residential floor area of 10,000 to 99,999 square feet.</u>	<u>One bicycle parking space per 10,000 square feet, up to a maximum of 100 required spaces.</u>
<u>In a building with a total non-residential floor area of 100,000 square feet or greater.</u>	<u>One bicycle parking space per 10,000 square feet, up to a maximum of 100 required spaces. One shower/change facility for each gender.</u>

250 **59-C-15.65. Parking.**

- 251 a) The maximum number of parking spaces provided on site must not
 252 exceed the minimum number established under Article 59-E.

253 b) The minimum number of parking spaces required is based on transit
 254 proximity as follows:

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Minimum Parking Requirements				
	Transit Proximity (Level 1 or 2)			
	<u>¼ mile from transit</u>	<u>¼ to ½ mile from transit</u>	<u>½ mile to 1 mile from transit</u>	<u>>1 mile from transit</u>
<u>Non-residential: the minimum number of required spaces under Article 59-E multiplied by the following factor:</u>	0.20	0.40	0.60	0.80
<u>Residential: the minimum number of required spaces under Article 59-E multiplied by the following factor:</u>	0.60	0.70	0.80	0.90

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257 c) Parking requirements must be met by any of the following:

- 258 1) providing the spaces on site;
 259 2) constructing publicly available on-street parking; or
 260 3) entering into an agreement for shared parking spaces in a
 261 public or private facility within 1,000 feet of the subject lot,
 262 provided that the off-site parking facility is not in an
 263 agricultural (Division 59-C-9), planned unit development
 264 (Division 59-C-7), or residential (Division 59-C-1) zone.

265 d) Every “car-share” space provided reduces the total minimum number
 266 of required spaces by 6 spaces for non-residential use or 3 spaces for
 267 residential use.

268 *Example: A non-residential site requiring at least 100 spaces under Article 59-E would be*
 269 *required to provide a maximum of 100 spaces on site. If that site was within ¼ to ½ mile of a*
 270 *transit station, the minimum requirement for parking would be 40 spaces (100 x 0.40 = 40). If 2*
 271 *car-share spaces were provided, that requirement would be 28 for non-residential use or 34 for*
 272 *residential use.*

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- e) The design of surface parking facilities must comply with the following:
 - 1) a parking facility at or above grade must not be located between the street and the main front wall of the building or the side wall of a building on a corner lot; however, the Planning Board may approve a design if it finds that the alternative design would provide safer and more efficient circulation;
 - 2) if a site is adjacent to an alley, the primary vehicular access to the parking facility must be from that alley; and
 - 3) curb cuts must be kept to a minimum and shared by common ingress/egress easements whenever possible.

- f) The design of parking facilities with drive-through services must comply with the following; however, the Planning Board may approve a design if it finds that the alternative design would provide safer and more efficient circulation:
 - 1) the driveway must not be located between the street and the main front wall of a building or the side wall of a building on a corner lot;
 - 2) the drive-through service window must be located on the rear wall of the building; and
 - 3) curb cuts to a street must be minimized to one drive aisle of no more than 20 feet in width for two-way traffic or two drive aisles each of no more than 10 feet in width for one-way traffic.

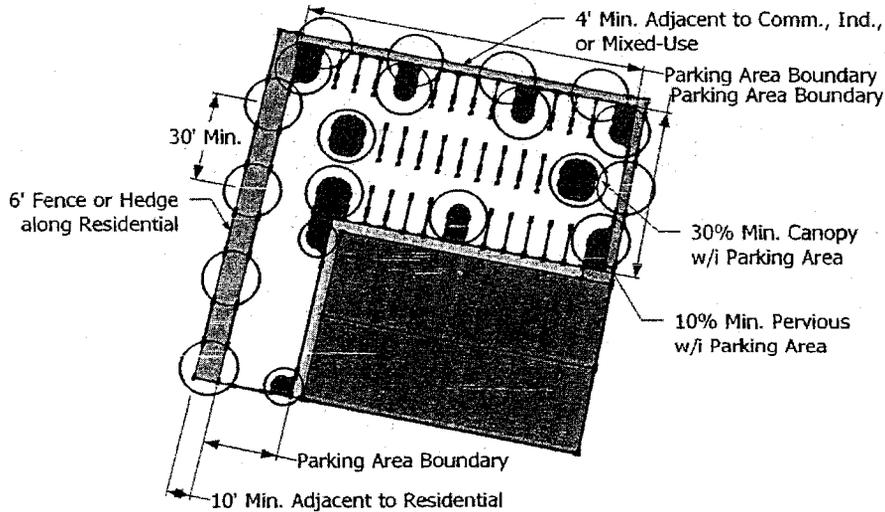
- g) Landscaping for surface parking facilities must satisfy the following requirements:

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Minimum Landscape Standards for Surface Parking	
<u>Subject</u>	<u>Requirement</u>
<u>Right-of-Way Screening</u>	<u>6-foot width of continuous soil panel or stormwater management recharge facility (not including any PUE or PIE) with groundcover, planting bed, or lawn; a minimum 3-foot high continuous evergreen hedge or fence; and one deciduous tree per 30 feet of street frontage or per the applicable streetscape standards.</u>
<u>Adjacent to a lot or parcel in any Commercial, Industrial, or Mixed-Use Zone</u>	<u>4-foot width continuous soil panel or stormwater management recharge facility with groundcover, planting bed, or lawn; one deciduous tree per 30 feet of frontage.</u>
<u>Adjacent to a lot or parcel in an Agricultural or Residential District</u>	<u>10-foot width continuous soil panel or stormwater management recharge facility with groundcover, planting bed, or lawn; 6-foot high continuous evergreen hedge or fence; and one deciduous tree per 30 feet of frontage.</u>
<u>Internal Pervious Area</u>	<u>10 percent of the parking facility area comprised of individual areas of at least 100 square feet each.</u>
<u>Tree Canopy Coverage</u>	<u>30 percent of the parking facility area (at 15 years growth).</u>

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59-C-15.7. Development Standards.

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Development in any CR zone must comply with the following standards.

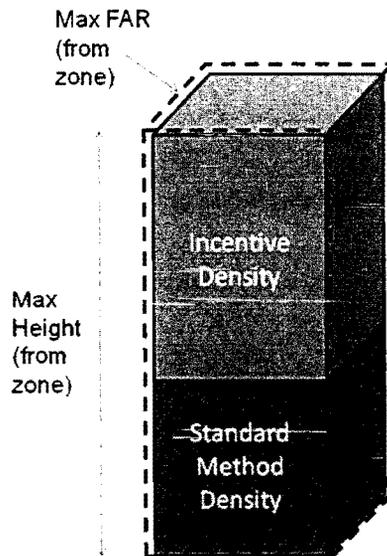
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59-C-15.71. Density.

- 307 a) The maximum density for any standard method project is 0.5 FAR.
308 Any single land use or any combination of land uses allowed in the
309 zone may achieve the maximum density.
- 310 b) The maximum total density and mix of maximum non-residential and
311 residential density for any project using the optional method of
312 development is specified by the zone. The difference between the
313 standard method density and optional method density is defined as
314 “incentive density” and is allowed under the incentive density
315 provisions of Section 59-C-15.8.

316 **59-C-15.72. Height.**

- 317 a) The maximum height for any building or structure in a standard
318 method project is 40 feet.
- 319 b) The maximum height for any building or structure in an optional
320 method project is determined by the zone.



321 *Incentive Density Illustration (with maximum FAR)*

322 **59-C-15.73. Setbacks.**

- 323 A building must not be any closer to a lot line of an agricultural (Division
324 59-C-9) or residential (Division 59-C-1) zone than:

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Minimum Required Public Use Space (% of net lot area)				
Acres (Gross)	Number of Existing and Planned Right-of-Way Frontages			
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4+</u>
<u>< ½</u>	<u>0</u>	<u>0</u>	<u>4%</u>	<u>6%</u>
<u>½ - 1.00</u>	<u>0</u>	<u>4%</u>	<u>6%</u>	<u>8%</u>
<u>1.01 - 3.00</u>	<u>4%</u>	<u>6%</u>	<u>8%</u>	<u>10%</u>
<u>3.01 - 6.00</u>	<u>6%</u>	<u>8%</u>	<u>10%</u>	<u>10%</u>
<u>6.01 +</u>	<u>8%</u>	<u>10%</u>	<u>10%</u>	<u>10%</u>

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c) Public use space must:

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1) be calculated on the net lot area of the site;

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2) be rounded to the next highest 100 square feet;

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3) be easily and readily accessible to the public;

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4) be placed under a public access easement in perpetuity; and

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5) contain amenities such as seating options, shade, landscaping,

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or other similar public benefits.

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d) Instead of providing on-site public use space, for any site of 3 acres

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or less, a development may propose the following alternatives,

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subject to Planning Board approval:

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1) public use space improvements to an area equal in size within

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¼ mile of the subject site; or

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2) a payment in part or in full to the Public Amenity Fund, equal

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to the average cost of required site improvements, added to the

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current square foot market value of the area required as public

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use space.

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59-C-15.75. Residential Amenity Space.

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a) Any building containing 20 or more dwelling units must provide

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amenity space for its residents as follows:

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Required Residential Amenity Space	
<u>Type of Amenity Space</u>	<u>Area of Amenity Space</u>
<u>Indoor space in a multi-purpose room, fitness room, or other common community room(s), at least one of which must contain a kitchen and bathroom.</u>	<u>20 square feet per dwelling unit up to 5,000 square feet.</u>
<u>Passive or active outdoor recreational space.</u>	<u>20 square feet per dwelling unit, of which at least 400 square feet must adjoin or be directly accessible from the indoor amenity space.</u>

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- b) The amenity space is not required for Moderately Priced Dwelling Units (MPDUs) on a site within a metro station policy area or where the Planning Board finds that there is adequate recreation and open space within a ½ mile radius of the subject site.
- c) The amenity space requirement may be reduced by ½ for Workforce Housing Units (WFHUs) located within a metro station policy area or if the minimum public open space requirement is satisfied on site.
- d) The provision of residential amenity space may be counted towards meeting the required recreation calculations under the M-NCPPC Recreation Guidelines, as amended.

59-C-15.8. Special Regulations for the Optional Method of Development

59-C-15.81. Incentive Density Provisions.

This section establishes incentives for optional method projects to provide public benefits in return for increases in density and height, consistent with the applicable master or sector plan, up to the maximum permitted by the zone.

- a) The incentive density approved for each proposed public benefit is calculated as a percentage of the total incentive density, which is the incremental difference between the standard method maximum FAR

383 (0.5) and the proposed project FAR up to the maximum FAR allowed
384 by the zone.

385 b) The minimum and maximum incentive density percentage increases
386 for each public benefit are established in Section 59-C-15.81(f).

387 c) The Planning Board may accept, reject, or modify a proposed
388 incentive density or modify the requested percentage above the
389 minimum of incentive density established up to the maximum
390 established. Except for those benefits with specific maximum
391 standards, in approving incentive densities above the minimum, the
392 Planning Board must consider:

- 393 1) the size and configuration of the parcel;
394 2) the policy objectives and priorities of the applicable master or
395 sector plan;
396 3) the applicable design guidelines;
397 4) the relationship of the site to adjacent properties;
398 5) the presence or lack of similar benefits nearby; and
399 6) quantitative and qualitative enhancements provided exceeding
400 the delineated minimum incentive density standards.

401 d) Public benefits that apply to 1 building in a multi-building project
402 must be weighted proportionally to the density of the applicable
403 building compared to the total density of the project.

404 e) In addition to the public benefits set forth below, an applicant may
405 propose other public benefits that will further the goals and objectives
406 of the applicable master or sector plan for the purpose of obtaining an
407 incentive density increase.

408 f) The Planning Board may grant no more than 30 percent of the total
 409 incentive density for a project for the connectivity, design, diversity,
 410 or environment incentive categories under (h) below or any public
 411 benefit approved under (e) above.

412 Example: A development in a zone with a maximum FAR of 5.5 would base all public benefit
 413 calculations on the incentive density of 5.0 FAR (5.5-0.5). Thus, being on a site adjacent to a
 414 metro station would yield an automatic incentive density of 2.5 FAR (5.0 x 0.50), and full
 415 density would be allowed by providing public benefits equal to an additional 50 percent.

416 g) Provision for inspections, maintenance, and enforcement of public
 417 benefits provided in return for incentive density must be established
 418 in a Site Plan Enforcement Agreement approved by the Department of
 419 Permitting Services and by resolution of the Planning Board before
 420 the certification of a site plan.

h) Table of density incentives: Incentive Zoning Table

Public Benefit	Percent of Incentive Density		Section Reference
	Minimum	Maximum	
<i>Transit Proximity</i>	See section reference		15.82
<i>Connectivity & Mobility</i>			
<u>Community Connectivity</u>	<u>10</u>	<u>20</u>	<u>15.831</u>
<u>Community Garden</u>	<u>5</u>	<u>10</u>	<u>15.832</u>
<u>Parking at the Minimum</u>	<u>10</u>	<u>20</u>	<u>15.833</u>
<u>Pedestrian Through-Block Connection</u>	<u>5</u>	<u>10</u>	<u>15.834</u>
<u>Public Parking</u>	<u>20</u>	<u>30</u>	<u>15.835</u>
<u>Transit Access Improvement</u>	<u>10</u>	<u>20</u>	<u>15.836</u>
<i>Diversity</i>			
<u>Adaptive Buildings</u>	<u>15</u>	<u>30</u>	<u>15.841</u>
<u>Affordable Housing: MPDUs</u>	See section reference		<u>15.842</u>
<u>Affordable Housing: WFHUs</u>	See section reference		
<u>Care Center</u>	<u>10</u>	<u>20</u>	<u>15.843</u>

<u>Community Facility</u>	<u>10</u>	<u>20</u>	<u>15.844</u>
<u>Local Retail Preservation</u>	<u>10</u>	<u>20</u>	<u>15.845</u>
<u>Unit Mix and Size</u>	<u>5</u>	<u>10</u>	<u>15.846</u>
<i><u>Design</u></i>			
<u>Floor Plate Size</u>	<u>10</u>	<u>20</u>	<u>15.851</u>
<u>Historic Resource Protection</u>	<u>10</u>	<u>20</u>	<u>15.852</u>
<u>Parking Below Grade</u>	<u>10</u>	<u>20</u>	<u>15.853</u>
<u>Podium/Tower Setback</u>	<u>5</u>	<u>10</u>	<u>15.854</u>
<u>Public Art</u>	<u>10</u>	<u>20</u>	<u>15.855</u>
<u>Public Plaza/Open Space</u>	<u>5</u>	<u>10</u>	<u>15.856</u>
<u>Streetscape, Off-Site</u>	<u>5</u>	<u>10</u>	<u>15.857</u>
<u>Exceptional Design</u>	<u>10</u>	<u>20</u>	<u>15.858</u>
<i><u>Environment</u></i>			
<u>Bio-retention and Stormwater Recharge</u>	<u>5</u>	<u>10</u>	<u>15.861</u>
<u>Conveyed Parkland</u>	<u>10</u>	<u>20</u>	<u>15.862</u>
<u>Dark Skies</u>	<u>5</u>	<u>10</u>	<u>15.863</u>
<u>Energy Efficiency and Generation</u>	<u>10</u>	<u>20</u>	<u>15.864</u>
<u>Green Wall</u>	<u>5</u>	<u>10</u>	<u>15.865</u>
<u>LEED Rating</u>	<u>10</u>	<u>30</u>	<u>15.866</u>
<u>Rainwater Reuse</u>	<u>5</u>	<u>10</u>	<u>15.867</u>
<u>Transferable Development Rights</u>	<u>10</u>	<u>30</u>	<u>15.868</u>
<u>Tree Canopy</u>	<u>10</u>	<u>20</u>	<u>15.869</u>
<u>Vegetated Area</u>	<u>5</u>	<u>10</u>	<u>15.8610</u>
<u>Vegetated Roof</u>	<u>10</u>	<u>20</u>	<u>15.8611</u>

421 **59-C-15.82. Transit Proximity Incentives.**

422 A project on a site near transit encourages greater transit use and reduces
 423 vehicle miles traveled, congestion, and carbon emissions. The additional
 424 percent of incentive density automatically allowed is as follows:

<u>Transit Proximity</u>	<u>Level 1 Transit</u>	<u>Level 2 Transit</u>
<u>Adjacent or confronting</u>	<u>50%</u>	<u>25%</u>
<u>Within ¼ mile</u>	<u>40%</u>	<u>20%</u>
<u>Between ¼ and ½ mile</u>	<u>30%</u>	<u>15%</u>

Between 1/2 and 1 mile	20%	10%
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59-C-15.83. Connectivity and Mobility Incentives.

A project that enhances connectivity and mobility encourages pedestrian and other non-auto travel for short and multi-purpose trips as well as for commuting. Such a project facilitates social interaction, provides opportunities for healthier living, and stimulates local businesses.

59-C-15.831. Community Connectivity.

a) The minimum incentive density increase for a building that enhances community connectivity by locating near existing retail uses or provides retail uses, requires that:

- 1) at least 10 different existing or proposed retail uses with direct pedestrian access are within 1/2 mile; and
- 2) at least 35 percent of those uses have a maximum floor area of 5,000 square feet and that any newly provided retail uses remain at or below that area for a period of at least 4 years after the initial use-and-occupancy permit is issued for that use.

b) The maximum increase requires additional benefits, such as a large diversity of retail uses, a greater number of retail shops, provision of services associated with live-work units, or that the required number of retail uses are within 1/4 mile.

59-C-15.832 Community Garden.

A community garden allows any resident to grow their own produce, reduce reliance on automobiles, increase water and air quality, and interact with other residents.

a) The minimum incentive density increase requires that the garden:

- 449 1) is located on the subject site or within 500 feet of the subject
450 site;
- 451 2) provides all garden spaces with at least 12 inches of soil depth
452 and access to water; and
- 453 3) provides community garden space at a rate equivalent to 1
454 space per 20 dwelling units. Each space must be at least 16
455 square feet. At least 1 out of each 10 spaces must be accessible
456 under ADA standards.
- 457 b) The maximum increase requires additional features such as a
458 composting facility, additional garden space, seating areas, doubling
459 as a green roof, or additional accessible garden plots.

460 **59-C-15.833. Parking at the Minimum.**

- 461 a) The minimum incentive density increase requires that sites of 1 acre
462 or more provide on-site only the minimum required number of
463 parking spaces.
- 464 b) The maximum increase requires that sites of less than 1 acre provide
465 on-site only the minimum required number of parking spaces.

466 **59-C-15.834. Pedestrian Through-Block Connections.**

467 A through-block connection enhances pedestrian mobility and helps to
468 create a variety of open spaces, particularly on larger blocks.

- 469 a) The minimum incentive density increase for a pedestrian through-
470 block connection requires that:
- 471 1) the pedestrian connection must provide direct access between
472 streets;
- 473 2) the pedestrian connection must be at least 15 feet in width;

- 474 3) at least 35 percent of the walls facing the interior pedestrian
475 connection below a height of 8 feet must have clear,
476 unobstructed windows, unless the Planning Board finds that an
477 alternative design is at least equally safe;
- 478 4) the pedestrian connection must be open to the public between
479 sunrise and sunset and, where it leads to a transit facility or
480 publicly-accessible parking facility within ½ mile, for the hours
481 of operation of the transit and/or parking facility; and
- 482 5) retail uses fronting both a pedestrian connection and a street
483 must maintain operable doors from both unless not required by
484 the Planning Board during site plan review due to exceptional
485 site circumstances.

486 b) The maximum increase requires additional benefits such as:

- 487 1) direct connection to parks;
488 2) transit facilities;
489 3) public buildings;
490 4) pedestrian connection with accessible retail uses along a
491 majority of its length;
492 5) connections increased in width; or
493 6) public artworks integrated into the walk.

494 **59-C-15.835. Public Parking.**

- 495 a) The minimum increase requires providing on-site the difference
496 between the minimum number of required parking spaces and the
497 maximum number of allowed parking spaces as publicly accessible
498 spaces for free or at a market rate.

499 b) The maximum increase requires providing public parking spaces, as
500 required above, in combination with additional improvements, such
501 as constructing those spaces underground or in a structure.

502 **59-C-15.836. Transit Access Improvement.**

503 a) The minimum incentive density increase for transit access
504 improvements requires that the improvements:

505 1) are located within 1/2 mile of the proposed development site
506 or, in the case of mobile transit improvements such as a bus
507 shuttle, provide regular access for passengers within 1/2 mile;
508 and

509 2) are built to ADA accessibility standards as amended.

510 b) The maximum increase requires additional benefits such as closer
511 access, new access easements, connecting walkways, mezzanines,
512 seating areas, structures for wind/rain protection, or concourse areas.

513 **59-C-15.84. Diversity Incentives.**

514 **59-C-15.841. Adaptive Buildings.**

515 An adaptive building can adjust to a diversity of uses over time, which
516 makes the building more accommodating of mixed uses, more sustainable,
517 and more embedded in the pattern of a community.

518 a) The minimum incentive density increase for an adaptive building
519 requires that:

520 1) the floor to floor dimension must be at least 15 feet for all
521 floors; and

522 2) the internal floor plan is based on a structural system allowing
523 flexibility of volumes divisible from 1 open floor plate to any
524 number of parceled volumes.

- 525 b) The maximum increase requires additional benefits such as that:
526 1) the structural system has additive capacity for any available
527 density and height that is not used by the building without
528 demolition of the structure; or
529 2) the internal layout is built to allow changes between residential,
530 retail, and office uses by minor modifications.

531 **59-C-15.842. Affordable Housing.**

- 532 a) All residential development must comply with the requirements of
533 Chapters 25A and 25B for the provision of Moderately Priced
534 Dwelling Units (MPDUs) and Workforce Housing Units (WFHUs).
535 b) Provision of MPDUs above the minimum required grants an incentive
536 density increase, providing the following standards are met:
537 1) the increase in density is calculated on the incentive density as
538 required by Chapter 25A;
539 2) the MPDUs must be reasonably distributed throughout the
540 project; and
541 3) any dwelling units built under this section must be controlled
542 under the MDPU or WFHU provisions for a minimum period
543 of 99 years.

544 Example: Provision of 14.5 percent MPDUs achieves an incentive density increase of 20 percent
545 (25-A-5(c)(3)). In the case of a CR4.5, that would equal 0.20×4.0 (the incentive density), which
546 is 0.8 FAR.

- 547 c) Provision of WFHUs grants an incentive density increase at the
548 following rate: 2 times the percentage of units provided as WFHUs
549 up to 30 percent.

550 Example: Provision of 5 percent WFHUs achieves an incentive density increase of 10 percent;
551 provision of 12 percent WFHUs achieves an incentive density increase of 24 percent.

552 **59-C-15.843. Care Center.**

579 Exact terms of lease requirements and rental agreements must be established
580 by the site plan enforcement agreement.

581 **59-C-15.846. Unit Mix and Size.**

582 a) The minimum incentive density increase for creating residential
583 buildings with a minimum mix of dwelling unit types (calculated by
584 rounding to the next higher whole number) requires provision of at
585 least:

- 586 1) 7.5 percent as efficiency dwelling units;
- 587 2) 8 percent as one-bedroom dwelling units;
- 588 3) 8 percent as two-bedroom dwelling units; and
- 589 4) 5 percent as three-bedroom dwelling units.

590 b) The maximum increase requires provision of at least (calculated by
591 rounding to the next higher whole number):

- 592 1) 10 percent as efficiency dwelling units;
- 593 2) 10 percent as one-bedroom units;
- 594 3) 10 percent as two-bedroom units; and
- 595 4) 7.5 percent as three-bedroom units.

596 **59-C-15.85. Design Incentives.**

597 **59-C-15.851. Floor Plate Size.**

598 a) The minimum incentive density increase for the provision of floor
599 plate restrictions requires that:

- 600 1) the floor area of any floor above a height of 120 feet does not
601 exceed 10,000 square feet for residential uses or 19,000 square
602 feet for non-residential uses, or 12,000 square feet for mixed-
603 uses (if not more than 60 percent of a mixed-use floor is used
604 for any single use); and

- 553 a) The minimum incentive density increase for a center for daytime
554 adult or child care requires a facility for at least 12 users and the
555 general public must have the opportunity to comprise at least 25
556 percent of the users.
- 557 b) The maximum increase requires additional benefits such as providing
558 for additional users, a safe drop-off area, an increase in users from the
559 general public, and recreation facilities provided above those required
560 by law.

561 **59-C-15.844. Community Facility.**

- 562 a) The minimum incentive density increase for a community facility that
563 helps meet the needs of residents and workers requires that the
564 community facility:
- 565 1) is recommended in the applicable master plan or sector plan;
566 and
- 567 2) is accepted for operation and use by an appropriate public
568 agency, community association, or nonprofit organization.
- 569 b) The maximum increase requires further benefits, such as an entrance
570 to the facility directly on the street, location of the building within 10
571 feet of a public sidewalk, associated outdoor open space, or
572 integration into an area with a residential FAR of at least 2.0 (or at
573 least 30 dwelling units per acre).

574 **59-C-15.845. Local Retail Preservation.**

575 Preservation of locally-owned small businesses on site is eligible for
576 incentive density as follows:

- 577 a) preservation of up to 2 small businesses: 10 percent; and
578 b) preservation of 3 or more small businesses: 20 percent.

84

605 2) the exterior of the building facing any street or public open
606 space has at least 60 percent glass on the floors with the
607 reduced floor plate.

608 b) The maximum increase requires additional benefits, such as providing
609 the reduced floor plates in conjunction with the Exceptional Design
610 factor, providing smaller floor plates, combining this incentive with
611 the tower setback, providing a larger percentage of glass, or
612 integrating sustainable technologies into the architecture.

613 **59-C-15.852. Historic Resource Protection.**

614 a) The minimum incentive density increase for the preservation of a
615 historic resource designated in the Master Plan for Historic
616 Preservation requires that a preservation strategy for the resource is
617 approved by the Planning Board as part of the site plan enforcement
618 agreement and that a historic area work permit is issued by the
619 Historic Preservation Commission.

620 b) The maximum increase requires that other benefits are provided, such
621 as interpretive signs/exhibits, integration and construction of context-
622 appropriate landscapes and settings, or protection of important
623 viewsheds.

624 **59-C-15.853. Parking Below Grade.**

625 a) The minimum incentive density increase requires that sites of 1 acre
626 or more provide all on-site parking spaces below the average grade of
627 the primary street frontage.

628 b) The maximum increase requires that sites of less than 1 acre provide
629 all on-site parking spaces below the average grade of the primary
630 street frontage.

59-C-15.854. Podium/Tower Setback.

- 631
- 632 a) The minimum incentive density increase for the provision of a tower
633 setback requires that the tower must be set back from the first floor
634 building frontage at or below 72 feet and the setback must be at least
635 6 feet.
- 636 b) The maximum increase requires that the tower setback be at or below
637 50 feet and that the setback be at least 12 feet.

59-C-15.855. Public Art.

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639 Public art is considered a public benefit because it enhances the quality of
640 place and creates a sense of identity in a community.

- 641 a) The minimum incentive density increase for public art requires that it:
642 1) enhances the general or specific cultural objectives of the
643 applicable master or sector plan; and
644 2) is approved by the Public Arts Trust Steering Committee.
- 645 b) The maximum increase requires that, in addition to the above
646 requirements, the artwork fulfill at least 5 of the following goals as
647 determined by the Public Arts Trust Steering Committee:
- 648 1) achieve aesthetic excellence;
649 2) ensure an appropriate interaction between the art and the
650 architectural setting in terms of scale, materials, and context;
651 3) ensure public access and invite public participation;
652 4) encourage collaboration between the artist(s) and other project
653 designers early in the design phases;
654 5) ensure long-term durability of permanent works through
655 material selection or a documented maintenance program;

- 656 6) encourage a rich variety of arts including permanent, temporary
- 657 (revolving), and event programming;
- 658 7) increase public understanding and enjoyment of art through
- 659 interpretive information and/or programmed events; and
- 660 8) achieve a collection of commissioned art that is unique and
- 661 contributes in a positive way to the identity of the community.
- 662 c) A fee instead of public art may be accepted for incentive density as
- 663 follows:
- 664 1) the minimum fee is calculated on 1 percent of the
- 665 development's projected cost;
- 666 2) the fee is paid to the Public Arts Trust Steering Committee;
- 667 3) the fee is used for installation, management, and maintenance
- 668 of public art at the discretion of the Public Arts Trust Steering
- 669 Committee, with preference given to the policy area where the
- 670 proposed development is located; and
- 671 4) the incentive density is equal to a 5 percent increase for every 1
- 672 percent of projected development cost paid to the Public Arts
- 673 Trust, up to 20 percent.

674 **59-C-15.856. Public Plaza/Open Space.**

675 Plazas are important public amenities and create interesting spaces and

676 active gathering areas.

- 677 a) The minimum incentive density increase for any plaza requires that:
- 678 1) the plaza is directly accessible to a street;
- 679 2) the plaza must be open to the public at least between sunrise
- 680 and sunset;

- 681 3) no proposed loading or parking facilities should be visible
682 below a height of the fourth floor; and
683 4) the plaza must be in addition to any public use space required
684 by the development standards or other minimum open space
685 requirement of this Division.
- 686 b) The maximum increase requires that the above requirements are met,
687 in addition to the following:
- 688 1) the plaza's width must be at least 50 feet;
689 2) where the plaza is provided as part of a redevelopment,
690 buildings facing the plaza must be designed so that:
- 691 A) the walls of any non-residential floor area facing the
692 plaza must have windows on at least 60 percent of the
693 façade below a height of 40 feet; and
- 694 B) the main entry to any dwelling units is from a wall facing
695 the plaza; and
- 696 3) the plaza should contain seating, trash receptacles, landscaping,
697 and other amenities such as water features, kiosks, and passive
698 recreation areas.

699 **59-C-15.857. Streetscape, Off-Site.**

700 Streetscape improvements enhance the pedestrian experience and better
701 connect buildings to the public spaces.

- 702 a) The minimum incentive density increase for streetscape
703 improvements requires that the following criteria are met:
- 704 1) the improvements must be located within 1/2 mile of the
705 subject site; and
- 706 2) the improvements are equal to 18 percent of the net lot.

707 b) The maximum increase requires that the improvements be equal to at
708 least 36 percent of the net lot area.

709 **59-C-15.858. Exceptional Design.**

710 The minimum incentive density increase for high-quality site and
711 architectural design requires that at least 3 of the following criteria are met;
712 the maximum density increase requires that at least 5 of the following
713 criteria are met:

714 a) provides innovative solutions in response to the architectural context
715 and surrounding landscape, for example, by rotating floor plates for
716 views or reconciling offset street-walls;

717 b) creates a sense of place that will serve as a landmark in the
718 community, for example, by creating a distinguishing element that is
719 visible from an important view or at a gateway to an area;

720 c) enhances the public realm in a distinct and original manner, for
721 example, by using existing materials and forms in new ways to
722 provide continuity and contrast;

723 d) adds to the diversity of the built realm within the community, for
724 example, by introducing new materials, building methods, or design
725 styles;

726 e) uses design solutions to make compact/infill living, working, and
727 shopping environments pleasurable and desirable, for example, by
728 retrofitting surface parking lots and single-use retail malls or creating
729 multi-use, pedestrian-dominated realms in previous auto-oriented
730 areas; and

731 f) integrates environmentally sustainable solutions, for example, by
732 using stormwater management facilities that incorporate best

733 management practices in an apparent and observable way or
734 integrating passive solar features into the visible structure of a
735 building or site.

736 **59-C-15.86. Environment Incentives.**

737 **59-C-15.861. Bio-retention and Stormwater Recharge.**

- 738 a) The minimum incentive density increase for the use of bio-retention
739 and recharge facilities requires that at least 25 percent of projected
740 stormwater outfall for a 10-year event be contained and recharged on
741 site or within ¼ mile of the site.
- 742 b) The maximum increase requires that at least 50 percent of projected
743 stormwater for a 10-year event be contained and recharged.

744 **59-C-15.862. Conveyed Parkland.**

- 745 a) The minimum incentive density increase for land conveyed to the M-
746 NCPPC for inclusion in or provision of parkland, trail area, or other
747 master-planned Parks' use requires conveyance of at least of 15
748 percent of the gross lot area.
- 749 b) The maximum increase requires conveyance of at least 30 percent of
750 the gross lot area.

751 **59-C-15.863. Dark Skies.**

- 752 a) The minimum incentive density increase for dark skies-compliant
753 projects requires that they be built and maintained in conformance
754 with the standards established by the International Dark-Sky
755 Association as amended.
- 756 b) The maximum increase requires that the exterior lighting plan be
757 integrated into an energy efficiency plan for the entire project

758 submitted and approved by the Planning Board with a site plan
759 application.

760 **59-C-15.864. Energy Efficiency and Generation.**

- 761 a) The minimum density incentive increase for the use of on-site
762 renewable energy generation requires that buildings must meet the
763 minimum energy efficiency standards of 17.5 percent for new
764 buildings, 10.5 percent for existing buildings, or generate at least 1.5
765 percent of their energy on-site.
- 766 b) The maximum increase requires additional benefits such as greater
767 energy efficiency and the generation of at least 2.5 percent of energy
768 on-site.

769 **59-C-15.865. Green Walls**

- 770 a) The minimum incentive density increase for a green wall requires that
771 it:
- 772 1) must be designed, installed, and maintained to cover at least 30
773 percent of the area of a blank wall or parking garage facing a
774 street or plaza; and
- 775 2) must be found to add to the aesthetic quality and environmental
776 sustainability of the project.
- 777 b) The maximum increase requires additional benefits such as a greater
778 percent of coverage, southern or western exposure, the use of plants
779 with varying flowering seasons, or integration into an overall energy
780 or environmental site design program.

781 **59-C-15.866. LEED Rating.**

782 A LEED-rated building or equivalent rating system approved under Chapter
783 8 Article VII is eligible for an incentive density increase if it meets any

784 continuing requirements necessary to maintain that status.
785 (<http://www.usgbc.org/Default.aspx>) The amount of incentive density
786 increase is equal to the following:

- 787 a) LEED Silver: 10 percent
- 788 b) LEED Gold: 20 percent
- 789 c) LEED Platinum: 30 percent

790 **59-C-15.867. Rainwater Reuse.**

- 791 a) The minimum incentive density increase for the collection of
792 rainwater for on-site irrigation, grey-water use, or filtration for re-use
793 requires that a minimum of 25 percent of projected rainwater for a 10-
794 year event be collected and used on-site or within ¼ mile of the site.
- 795 b) The maximum increase requires that at least 50 percent of projected
796 rainwater for a 10-year event be collected and used.

797 **59-C-15.868. Transferable Development Rights.**

798 The incentive density increase for the purchase of transferable development
799 rights (TDRs) must meet the following:

- 800 a) the purchase must be executed and recorded before approval of a
801 record plat;
- 802 b) the use of this incentive must be for development on land
803 recommended as a TDR receiving area in the appropriate master or
804 sector plan;
- 805 c) TDRs must be purchased in increments of 10; and
- 806 d) the incentive density increase is equal to 10 percent for every 10
807 TDRs purchased, up to 30 percent.

808 **59-C-15. 869. Tree Canopy.**

809 a) The minimum incentive density increase for the provision of tree
810 canopy requires coverage of at least 25 percent of the on-site open
811 space at 15 years growth.

812 b) The maximum increase requires coverage of at least 50 percent of the
813 on-site open space at 15 years growth.

814 **59-C-15.8610. Vegetated Area.**

815 a) The minimum incentive density increase for a vegetated area requires
816 that the following criteria are met:

817 1) the area must be in addition to any required on-site open space
818 or any vegetated roof incentive;

819 2) the area must replace at least 5,000 square feet of impervious
820 area;

821 3) the area provides at least 12 inches of soil depth; and

822 4) the area is planted with well-maintained vegetation.

823 b) The maximum increase requires additional benefits, such as larger
824 area or greater soil depth.

825 **59-C-15.8611. Vegetated Roof.**

826 a) The minimum incentive density increase for a vegetated roof requires
827 that the:

828 1) vegetated roof must cover at least 33 percent of the roof of the
829 building, excluding any space occupied by mechanical
830 equipment; and

831 2) soil or media depth must be at least 4 inches.

832 b) The maximum increase requires coverage of at least 60 percent of the
833 roof area.

834 **59-C-15.87. Special Regulations for Purchase of Building Lot**
835 **Termination (BLT) Development Rights.**

836 a) A development under the Optional Method must purchase building
837 lot termination (BLT) easements under Chapter 2B, or a contribution
838 must be made to the Agricultural Land Preservation Fund under
839 Chapter 2B equal to 12.5 percent of the incentive density floor area
840 using the following formula:

841 1) one BLT easement is required for each 9,000 square feet of
842 residential floor area;

843 2) one BLT easement is required for every 7,500 square feet of
844 non-residential floor area.

845 b) When a BLT easement cannot be purchased or the amount of floor
846 area attributed to a building lot termination easement is a fraction of
847 the floor area equivalent, payment must be made to the Agricultural
848 Land Preservation Fund according to the rate set annually by
849 executive regulation.

850 **59-C-15.9. Existing Approvals.**

851 a) A lawfully existing building or structure and the uses therein, which
852 predates the applicable sectional map amendment, is a conforming structure
853 or use, and may be continued, renovated, reconstructed to the same size and
854 configuration, or enlarged up to 10 percent above the existing floor areas or
855 30,000 square feet, whichever is less, and does not require a site plan. A
856 larger addition requires compliance with the full provisions of this Division.

857 b) A project that received an approved development plan under Division 59-D-
858 1 or schematic development plan under Division 59-H-2 before the
859 enactment of the CR zones may proceed under the binding elements of the

860 development plan and will thereafter be treated as a lawfully existing
861 building and may be renovated or reconstructed under Subsection (a) above.
862 Such projects may be amended as allowed under Division 59-D-1 or 59-H-
863 2, under the provisions of the previous zone; however, any increase in the
864 total floor area or building height beyond that allowed by Subsection (a)
865 above requires full compliance with the full provisions of this Division.
866 c) A project which has had a preliminary or site plan approved before the
867 applicable sectional map amendment may be built or altered at any time,
868 subject to either the full provisions of the previous zone or this division, at
869 the option of the owner. If built under the previous approval, it will be
870 treated as a lawfully existing building and may be renovated or
871 reconstructed under Subsection (a) above.

872

873 **Sec. 2. Effective date.** This ordinance becomes effective 20 days after the date of
874 Council adoption.

875

876 This is a correct copy of Council action.

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879 _____
Linda M. Lauer, Clerk of the Council

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