**MCPB 03/27/08**
**Item #5B**

- Memorandum – Twinbrook Zoning Text Amendment
- Factors to Consider in Zoning for Transit Station Areas in Montgomery County
    - Attachment: Preliminary Thoughts on Form Based Codes and Traditional Zoning Ordinances
    - Attachment: Staff Report: MCPB Item #15 – January 24, 2008

**MEMORANDUM** **(Item #5-B, MCPB Agenda, 3/27/08)**

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| TO | Montgomery County Planning Board |
| FROM | Richard Tustian, Policy Advisor |
| DATE | March 25, 2008 |
| SUBJECT | **Twinbrook Zoning Text Amendment (Agenda #5-C) & Germantown Master Plan Recommendations (Agenda #6)** |

These two items on the Board's 3/27/08 agenda require action. There are scheduling issues associated with each of them.

**Twinbrook Zoning Text Amendment**

+ **Item #5-C** presents the final draft Zoning Text Amendment to accompany the Twinbrook Master Plan Amendment. The completion of this zoning text amendment will permit the Council to set a public hearing on both the plan and its zones for sometime in mid-May. There is a policy issue associated with the timing of this action. Council President Knapp wrote a letter to Board Chairman Hanson, requesting that the Board meet the deadline outlined above. This letter, however, also requested that the Twinbrook zoning text amendments be crafted so that these same zones will satisfy the zoning needs of the next set of plans under way (e.g. White Flint, Gaithersburg, Germantown).

Chairman Hanson replied that this second request does not seem possible to fulfill within this time frame. He recommended that the Twinbrook Plan and its Zoning Amendments go forward to public hearing now, and that we collectively learn more about consolidating zoning categories as the Board goes forward with the next plans under study. (See both letters attached.)

+ **Item #6** presents preliminary staff recommendations for land use and zoning in the Germantown Master Plan Amendment. This draft plan uses the same new mixed use zone structure as was developed for the Twinbrook Plan, including its TDR provisions. In this respect, this draft plan is following the approach requested in the

Council President's letter, of using one zone structure for multiple different plans.

However, the application of this zone structure to this planning area is objected to by the Gaithersburg-Germantown Chamber of Commerce, for reasons that include the idea that zoning should be tailored to the unique conditions prevailing in different planning areas. Staff has noted this objection in the Staff Memo for Item #6, and included the letter as Attachment 5. (A copy of this letter is also attached to this memo.)

The Germantown Plan remains to be brought to its final form by the Board. If the zone structure for this plan is kept the same as currently drafted, over the objections of the Chamber, it will satisfy, at least partially, the desire of the Council's letter to move further towards a more generic zoning code. If it is changed from the zone structure used in Twinbrook, we will be adding two new zoning classification categories to the ordinance (Twinbrook and Germantown) rather than one - a move away from the Council's desired direction.

It is conceivable that the Board could decide that it wants to move even further in this direction in the future, by also creating zones custom tailored to the White Flint and Gaithersburg Plans now in the pipeline. The Germantown Plan, therefore, confronts the Board with a problem larger than it may appear at first glance.

**The Larger Problem**

At this particular moment, the Board's decision making schedule is under pressure to satsify two competing desires. One desire is to tailor plans and their implementing zones to the unique circimstances of each planning area. The other is to reduce the complexity of the Zoning Ordinance, by reducing the number of zoning classifications within it.

To completely overhaul the Zoning Ordinance is a monumental task. Adding pieces to it, so long as they do not conflict with its basic structure (e.g. new zones for Twinbrook, Germantown, etc.) is not a problem. But to reduce and compress its existing pieces requires structural change. This takes time, expecially when the need for

stakeholder participation is taken into account. The work program properly set aside up to two years for this project.

The Master Plans, although also dealing with complex issues, and also necessitating stakeholder participation, have been put on on a faster track than the Zoning Ordinance. Ideally, the Plans would wait on the Zoning Ordinance overhaul. But this delay would not fit the time pressures perceived to be important to the Plans' schedule. The challenge at present is to find a way to reconcile the inherent tension, between the desire to reduce complexity and the desire to enhance uniqueness, without unduly slowing down the Master Plan process.

The attached paper[1] is an effort at selecting, in advance of the Zoning Ordinance Revision schedule (which must take the time necessary to involve many relevant stakeholders), some key factors and issues that I believe can be worked on, as the White Flint and Gaithersburg Plans are continuing (and possibly while the Germantown Plan undergoes its final work sessions also).

[1] "Factors To Consider in Zoning For Transit Station Areas in Montgomery County"

MONTGOMERY COUNTY COUNCIL
ROCKVILLE, MARYLAND

OFFICE OF THE COUNCIL PRESIDENT



# MEMORANDUM

March 6, 2008

TO: Royce Hanson, Planning Board Chairman

FROM: Mike Knapp, Council President

SUBJECT: TOMX Zone

I have personally conveyed to you my apprehension about the schedule for the Twinbrook Sector Plan. Council Staff has shared with me their concerns and the concerns of the Zoning Text Amendment Advisors regarding the amendments to the Transit-Oriented Mixed Use zone that will be necessary to implement the Plan. Since the Council is not prepared to set a hearing for the Twinbrook Sector Plan unless we can simultaneously introduce the accompanying text amendment, I am requesting that you do everything possible to expedite the Planning Board's review of the work necessary to revise the zoning text amendment (ZTA) so that it is ready for introduction. In addition, since the text amendment proposes a new strategy for using Transferable Development Rights (TDRs) in mixed-use zones, I believe it is critical to ensure that the approach recommended for this zone is evaluated in terms of its applicability to other zones, particularly other mixed-use zones as recommended by the Ad Hoc Agricultural Policy Working Group.

The TOMX ZTA was transmitted to the Council missing certain key information and with a new approach to uses in the land use table. It also did not address many of the broader policy issues raised by Dick Tustian in his analysis of the TDR related issues. Specifically, the ZTA lacks a standard to calculate how many TDRs are needed to achieve recommended densities. (While it recommends a square footage equivalent – X square feet per TDR – it does not indicate what the amount of square feet should be.) The land use table recommendations are inconsistent with other zones in the Ordinance. While many of these changes may be warranted, it should be considered for all zones with similar functions and uses. The Zoning Text Amendment Advisors believe the absence of consistence will lead to problems with interpretation of the Ordinance. In addition, the Planning Department told the Advisors that there are a number of policy issues still under consideration (e.g., whether to lower the density in

the standard method so the additional increase in density obtainable via the option method could be attained through TDRs). All of these issues should be resolved to the Board's satisfaction before the text amendment is introduced since it will be important to give the public the opportunity to testify on all major changes in the zone. A basis for the Planning Board's recommendations must be provided for the ZTA's legislative history when it is transmitted.

The Zoning Text Amendment Advisors developed a list of changes to the ZTA at its February 13th meeting:

- The use table should be redrafted to do one of the following:
  - conform uses to the existing use table;
  - describe only prohibited uses or uses allowed only by special exception; or
  - define performance standard for any use and delete the use table.
- Generalizing uses in the land use table should be undertaken as part of the comprehensive zoning re-write.
- §59-C-13.235 should delete the limit on stories.
- §59-C-13.236 should be title "Minimum Setback (in feet)" and the word "feet" should be deleted from the table.
- The word "established" or "authorized" as it applies to an applicable master or sector plan should be replaced with the word "recommended".
- Footnotes in §59-C-13.242 concerning Shady Grove (starting on line 232) should be reworked into the table as much as possible.

I am concerned both about the schedule for the text amendment and Sector Plan and, at the same time, making sure that this is done correctly so that it can serve as a model for the future. The Shady Grove Sector Plan was adopted two years ago with a hurried effort to add TDRs to the TOMX zone. In Planning Staff's assessment for the Twinbrook Sector Plan, they determined that the approach used in Shady Grove was not the best and decided to use an alternative approach for Twinbrook (which our staff believes is superior). I want to make sure that enough thought has been given to this revision to minimize the need to change the TOMX zone for future Master Plans and maximize the prospects for using the TDR mechanics in other mixed use zones.

Please let me or our staff know as soon as possible when you plan to transmit the revised zone.

Cc: Councilmembers
Marlene Michaelson
Jeff Zyontz

Letter from Chairman Royce Hanson to
Council President Mike Knapp

Dated March 19, 2008

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

**Memorandum**

March 19, 2008

To: Council President Michael Knapp

From: Royce Hanson

This memo responds to yours of March 6 concerning the schedule for the Twinbrook Sector Plan and also reflects our March 17 discussion of some of the issues the memo raised.

The Board will act on March 27 on the specific provisions of the recommended zoning texts for the TOMX zones proposed by the plan. These will be presented to you in time to set the public hearing on the plan and zoning texts at your April 1 meeting. The zoning texts will be accompanied by a report containing the reasons for their use. Also, the texts include the technical changes suggested by the ZTA advisors. Any other changes can be addressed best during PHED work sessions.

The proposed zones provide for the use of TDRs to increase densities above certain thresholds for residential and commercial space in mixed-use zones. While the approach recommended should work for Twinbrook, we do not regard it as a template for the best way to address the larger problem of TDR receiving areas, or as applicable in other sector plans that are being developed. The Board is uncomfortable with attempting to extrapolate from the very limited circumstances and experience with Twinbrook to larger and far more complicated places such as White Flint, the Life Sciences Center, and Germantown. It is simply too soon to generalize based on insufficient information. This one small area sector plan and its accompanying zones are not the place to leverage a thorough revision of the zoning ordinance. That is proceeding on a separate track, and may well result in amendment, or even elimination, of some zones, and could necessitate amendments to some master plans.

As we produce these next plans, we are exploring two related issues. First, we are trying to determine how much design detail to include in the plans and how much to place in regulatory codes. Resolution of that issue will affect the way in which the zoning ordinance is revised to deal with major urban centers. Second, we are actively engaged with various stakeholders in assessing the extent to which development in these areas can provide a market for termination of developable rights in the Agricultural Reserve as well as traditional TDRs. We have spent considerable staff and board time examining various facets of this issue, but we need further testing of the economic and physical feasibility of different alternatives in light of actual conditions and planning objectives before confidently making recommendations—especially ones that implicate areas still under study, much less ones not yet in the work program.

In short, the Board will be prepared to defend its judgment concerning the zones recommended for Twinbrook. But we cannot guarantee you that there will be no more changes in the TOMX zone, that there will be no more TOMX or other zones to meet conditions in other planning areas, or that these zones will be a model for others. What we discovered in dealing with the issue in Twinbrook is that, especially in areas recommended for dense development or redevelopment, creating an economically viable approach requires area-specific analysis and a lot of trial and error efforts to get it close to right.

**ATTACHMENT 5**

# Gaithersburg-Germantown Chamber of Commerce, Inc.

4 Professional Drive, Suite 132, Gaithersburg, Maryland 20879-3426, (301) 840-1400, Fax (301) 963-3918



February 26, 2008

Ms. Sue Edwards
Community-Based Planning
8787 Georgia Avenue
Silver Spring, Maryland 20901

Re: Germantown Master Plan
Zoning Recommendations

Dear Sue:

We recently convened a meeting of the Germantown Business District property owners to discuss the Staff's draft zoning recommendations for the affected properties. We realize that the Staff has not completed its thinking on these issues (e.g. there is no zoning recommendation yet for the North Village property and the TDR and other issues still appear up in the air), but we thought it would be appropriate for us to share our observations with you at this juncture.

We collectively think it is important for all zones to create a significant incentive for redevelopment. It is not appropriate to assume that the maximum density of development offered by any zone can be achieved due to site and other constraints, or that there has to be an exact correlation between this theoretical maximum density and today's projection of the adequacy of public facilities. The Growth Policy and the Project Plans will control how much and when a project gets built at the time it is submitted for approval. While it is important to understand the current limits of school and transportation capacity, these limits are not necessarily applicable over the twenty year life span of the master plan as lifestyles and demographics evolve and change.

We are concerned that the proposed zoning seems to diverge from the vision of the ULI study conducted in 2006, as well as what we interpreted as the Planning Board's vision for Germantown. The Business District properties actually need to yield a minimum 1.0 FAR in order to redevelop these properties into mixed-used developments and provide the amenities expected of them. This is also a minimum yield to help support the Corridor Cities Transitway. This minimum density must be net of any TDRs (but inclusive of MPDUs). Allocating a realistic net density of 1.0 FAR is a level of development which can be accommodated by projected public facilities, since the timing variables are controlled by the Growth Policy and Project Plans.

We have some specific comments on the draft TOMX zone concept that we would like to express for your consideration:

1. Optional Method Breakpoint: Properties should be permitted to develop under the standard method up to an FAR of .5. This is what is currently permitted under the I-3 zone; the site plan process would still apply. Setting the optional method breakpoint at the proposed .3 FAR is unfair and unnecessary.

# Gaithersburg-Germantown Chamber of Commerce, Inc.

4 Professional Drive, Suite 132, Gaithersburg, Maryland 20879-3426, (301) 840-1400, Fax (301) 963-3918




2. Percentage Use Limitation: We request that the Staff not include use limitations in the master plan that suppress the use flexibility inherent in the TOMX zone. Perhaps a minimum employment use would be acceptable, but any other minimums and maximums will limit flexibility and would represent the Staff's view on the appropriateness of limitations under current market conditions—not market conditions over the twenty year lifespan of the master plan.

3. TDRs: We recognize that there will be pressure to apply TDRs everywhere in the master plan area. However, doing so without understanding their economic impact of the viability of redevelopment projects would be a big mistake. The property owners already have the burden of structured parking and proffers on any density between 0.5 and 1.0 FAR from the optional method. Adding the cost of TDRs (which cost about the same per FAR as land) on top of these other costs makes it economically infeasible to develop above 0.5. As discussed earlier, we believe that no TDR purchase requirement should apply for 1.0 FAR to preserve the economic viability and incentive for this redevelopment; rather, TDRS should apply only for any density requested by a property owner above 1.0 FAR. Specifically, we suggest that the TOMX 1.0 zone allow a density up to 1.5 FAR if TDRs are used above 1.0 FAR. Doing so would align the economic implications of the TDR purchase prices for the increased density. The current Staff proposal to require the purchase of TDRs above .5 FAR is completely infeasible and unfair.

It is our desire and vision to make Germantown a great place to live and work and we hope we can work with Park & Planning to meet that vision. We appreciate the opportunity to participate in this important dialogue with you, since we share your desire to resolve as many issues in the master plan before the staff makes their preliminary zoning recommendations. If a meeting with the staff on any of these issues would be helpful, please let me know. Thank you.

Sincerely,

Marilyn Balcombe
President and CEO

Germantown Business District Partners:
- Bellemead Development Corporation
- Hughes Network Systems
- Kennedy Associates
- Lerner Enterprises
- Matan Companies
- Minkoff Development Corporation
- Oxbridge Development Group
- Trammel Crow Company

**FACTORS TO CONSIDER IN ZONING**
**FOR TRANSIT STATION AREAS**
**IN MONTGOMERY COUNTY**

Richard Tustian, Policy Advisor
March 25, 2008

With regard to the Master Plans now in process, the central strategic question is how much of the amenity features of the future built environment should be the responsibility of the private sector, versus that of the public sector. In zoning terms, this question manifests itself as a question about what should be the nature of any new zoning categories that need crafting to suit the needs of transit station areas.

To make decisions about these questions, it is important to keep in mind a clear understanding of the structure of the Planning/Zoning System in Montgomery County, and of the full set of public sector objectives to which this system is asked to respond. This paper outlines first the system, second the objectives, and third the linkages between these two. The conclusion offers some suggestions for continuing staff work. (See page 13.)

## MONTGOMERY COUNTY'S PLANNING/ZONING SYSTEM

### Zoning

Zoning, in general, controls two factors: Use and Bulk. Bulk is expressed two ways: in terms of Density (or intensity), and in terms of Dimension (height, setback, etc.). Use is a description of a human activity, whereas Bulk is a measure of physical mass. Thus, although this tool is called Land Use Zoning, its regulatory power extends to more than just descriptions of Use. It extends to the physical size and shape of the built landscape.

The thing, that in popular parlance is called a "zone", actually refers to a specific combination of use and bulk criteria that are intended to apply to a spatial area larger than a single property. By definition, this means it applies to a number of different property owners. This area is called a Zoning District.

The property owners within this area, by virtue of being zoned under a common Zoning District Classification (ZDC), have been legally separated from property owners in other zoning districts. They are being treated as a "class" that is different from other "classes" of property owners. This gives rise to the "uniformity rule" of zoning, the principle that seeks to ensure that all property owners within a zoning class shall be treated the same. The mantra is to avoid being "arbitrary and capricious" in the way that zoning treats one owner vis-à-vis another. This principle is driven by a search for universality of application.

By contrast, the natural desire of every individual property owner is to develop in a way that is uniquely appropriate to the location and character of the land parcel, and to the aims and objectives of the owner to achieve full enjoyment of his/her property in whatever way he/she prefers. Zoning, therefore, not only constrains this "full enjoyment", in order to serve the greater community good. It also, because of its uniformity principle, makes it difficult for individual property owners to satisfy their search for individuality of application.

The tension between the desire of Zoning for universality, and the desire of Individuals for idiosyncrasy, is the implicit theme of this paper. How this tension is resolved is the key to good urban planning.

To continue, the definition of what Use and Bulk is permitted in each different Zoning District Classification must be spelled out in some document. This document is called the Zoning Ordinance. The ordinance consists of written criteria for Use and Bulk, plus a map showing which properties are subject to which Zoning District Classifications.

The point of restating these things that are so well known to the Board, is to emphasize the fact that the Zoning Ordinance, with its combination of Text and Map, constitutes the whole of the enforceable legal structure of land use regulation. This has significant implications for the thing we call "Planning".

**Planning**

The legal linkage between Zoning and Planning comes in two ways, one substantive and one procedural. The procedural way is when the Zoning Ordinance, or an overarching law such as the County Charter, lays out provisions under which the County Council, in enacting a rezoning, must refer to the applicable Master Plan for guidance.

The substantive way takes one of two paths. One is when some other piece of legislation sets restrictions on land use that apply equally under the law (e.g. wetland preservation, etc.). The other is when the Zoning Ordinance authorizes the Planning Board to issue permits in certain cases where more detailed findings are desirable than those outlined in the Zoning Ordinance.

In these cases, the guidelines for these more detailed findings are to be found in the applicable adopted Master Plan. In Montgomery County, all area master plans are approved by the County Council, and adopted by the Planning Commission. So, the adopted plan shares with the Zoning Ordinance an aura of legislative authority.

The prevailing interpretation of the principle involved here is that substantive criteria, that reside in sources other than the Zoning Ordinance, cannot permit greater Use or Bulk than the Zoning Ordinance permits. But they can act to further limit the maximum Use and Bulk thresholds described within the Zoning Ordinance itself. This principle is particularly relevant to the topic of this paper, when we come to examine the so called Optional Method Zones.

These zones are said to be "in the nature of a special exception". That is to say, the maximum Use and Bulk is set forth in the parent Zoning District Classification, but limitations on the extent of this Use and Bulk may be set by a designated body other than the Council, operating under a set of procedural guidelines. In the case of Special Exceptions, this body is the Board of Appeals, In the case of OM Zones, this body is the Planning Board.

OM Zones apply two different sets of criteria to one Zoning District Classification. One set applies to what is called the Standard Method

(SM) of permit review. The other applies to what is called the Optional Method (OM) of permit review. Under the Standard Method, an applicant seeking to have his/her property rezoned can find all the criteria pertaining to his desired zoning classification within the text of the Zoning Ordinance, except as these may be conditioned by other pieces of separate legislation. Under the Optional Method, which must be voluntarily applied for by the property owner, the applicant must look to certain guidelines that are contained within the relevant adopted Master Plan.

It is the detailed structure of these OM zones, and the guidelines they contain, that is the key feature of the Montgomery County Planning/Zoning System we need to keep in mind. Preparing new Master Plans using OM Zones requires careful coordination between the language of the Master Plan and the language of any OM Zoning Districts that are used.

**TRANSIT STATION AREA PLANNING OBJECTIVES**

Two of the next set of pending master plans lie at station areas along the Metro Red Line (Twinbrook, White Flint). Two lie at station areas along the proposed Corridor Cities Transitway (Gaithersburg, Germantown). The prevailing vision for all four plans is for them to redevelop as relatively high-density, mixed-use, transit-oriented, pedestrian-friendly, and environment all -efficient places to both work and live. In short, we aspire to create "eco-urban community centers", each with its appropriate level of public facilities, amenities, and internal integration, both functional and spatial.

Six different categories of public sector objectives have been discussed by the Planning Board in recent months. These include:

(1) Spatial Amenities (streetscape, public use places, etc.);
(2) Environmental Amenities (green roofs, organic drainage, etc.);
(3) Public Facilities (local parks, public garages, APFO designated facilities, etc.);
(4) Urban Design Criteria (form based codes, etc.);

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(5) Affordable Housing (MPDU & WFH); and
(6) Agricultural Preservation (TDR + BLT?).

The first four share the characteristic that they all pertain to the functional and spatial character of the local area being redeveloped. The second two share the characteristic that they derive less from the idiosyncratic nature of the local place, and more from the generic nature of countywide policy objectives. Let us keep these objectives in mind as we seek to make clear the linkages necessary between these planning objectives and the OM Zones.

**LINKING PLAN OBJECTIVES TO OM ZONES**

The "ceiling" capacity of any Zoning District Classification (ZDC) can be expressed in two ways. One is in terms of the maximum number of uses that will be permitted. And another is the maximum Bulk that will be permitted. And Bulk can be expressed either as Density, or as Dimension, or as both. As noted above, some combination of all three represents the definition of a ZDC.

When we examine the linkage between Plans and OM Zones, there are two different ways to view it. First is how should Use and Bulk criteria be split between the Standard Method and the Optional Method. Second is how should these two kinds of criteria be split between a home in the Zoning Ordinance ZDC, and a home in the Master Plan. The fact that there are so many ways, to combine these three variables across these two options, for splitting, can make for considerable confusion in sorting out the best combination to choose.

I will not take the time to categorize the way that each of these three variables are handled in each of the existing OM Zones already in existence. What is relevant is to note is how the complexity can begin to increase when we gradually shift the Zoning Ordinance from a set of ZDC's defined as single use, non-optional method zones (the so called Euclidean Zones), to a set defined as as mixed use, flexible zones (our OM Zones).

In the first scenario, each ZDC contains all its criteria - for Use, Density and Dimension - in just one place. The upside of this is that

each ZDC is a self-contained entity, like a single color on an artist's palette. If you want that color, it easy to use. The downside is that individual property owners may not want that particular color. They may want a slightly different color. And similarly, the civc community, and the Board and Council, also may want a palette of many colors, in order to do justice to the unique needs of all these constituencies and local situations. As time goes on, the size of the Zoning Ordinance tends to balloon with a multiplicity of specially crafted ZDC's.

In the second scenario, some of the ZDC criteria are shifted into the Master Plan. The upside of this is twofold: (1) the work of crafting unique solutions for some zoning criteria is congruent with the objective of each Master Plan to be custom tailored to its situation: and (2) the number of ZDC's in the ordinance can be reduced, by shifting some of the Use or Bulk detail to the Master Plan. And as plans are, by definition, more comprehensively thought through than individual rezoning actions, the composite result should be much better from a public interest perspective.

The downside also is twofold: (1) the Plan's guidelines for zoning need to be expressed with greater clarity and precision than if the plan is a "policy" document and no more; and (2) it takes longer to produce a plan with this greater degree of specificity, because not only does the detail take time to design, but also this detail needs to meet legal standards for adequate clarity of expression.

In short, making simple Master Plans saves time, but puts the burden on the rezoning process. But simplifying the rezoning process puts the burden back on the Plan. There is no perfect solution to the conflict between the two needs built into the problem: the need for idiosyncrasy and the need for universality. The former is the essence of Architecture. The latter is the essence of Law. The art of land use planning and implementation lies in managing the points where these two competing human imperatives meet. Let us consider this conflict as we examine each of the Board's current planning objectives.

**(1) Spatial Amenities**

By this term I mean the bundle of "things" and "programs" that is

expected to be provided by development under the optional method of an OM Zone. In the Central Business District (CBD) Zones, the "things" have tended to consist primarily of streetscaping elements, such as pavement types, street furniture, trees and other planting, public art, sculpture and fountains, and enclosed and open spaces dedicated to public access and use of various kinds. The "programs" have tended to consist of ongoing operational activities that provided funding and oversight for maintenance of common open space, community events, and the operation of certain local services such as parking and business promotion.

The abstract principle behind this articulation of "spatial amenities" is the notion that the developer, in return for being given the opportunity to increase Use and Bulk significantly, should provide an offsetting amount of "public amenity", so that the result is a total community and not just a cluster of private buildings. When buildings and people rise up in the air, there is a need generated for a compensating urban garden on the ground.

The current structure of the CBD Zones, and their related Master Plans, is such that the precise definition, of what constitutes a Spatial Amenity requirement for each separate Project Plan approved by the Board, is defined by a judgmental decision by the Board, after a public hearing surrounded by a considerable amount of procedural due process requirements.

The CBD Zones contain a purpose clause that sets the general objectives, and a number of further detailed provisions, some necessary in advance and some to be determined in the OM approval process. The relevant CBD Plans provide further detail, in the form of Design Guidelines, with illustrative diagrams (i.e. Density and Dimension). The Board considers arguments from all of the applicant, the staff, and the public, as to which of these criteria and guidelines should be followed to the letter, and which of these should be amended to fit the needs of the current situation.

These CBD Zones represent the basic OM model in use for over thirty years. What the Board is dealing with now is the idea of extending this basic model to do two things: (1) expand the application of this

model to the remaining Transit Station Areas (TSA) of the county; and (2) expand the number of public purpose objectives to be included in the guidelines for use of the OM. The development of the TOMX-1 Zone for use in Shady Grove, and its subsequent revision, and expansion into TOMX-2, for use in Twinbrook, and now possibly Germantown, were the first steps along this path. The next may be the extension of these two TOMX zones, and the addition of a TOMX-3 Zone for White Flint. Let us continue by examining the issues involved in expanding the number of public purpose objectives in the OM guidelines.

**Environmental Amenities**

I distinguish this type of amenity from the one above, primarily because its rationale derives from a different purpose than the first one. The basic purpose of the first one is to serve the social needs of people. The basic purpose of this second one is to serve the physical health needs of the natural world on which our social world depends. With the current level of media attention being paid to global warming and species preservation, not much more need be said about the importance of this objective.

The dominant way, in which this need to preserve air and water quality manifests itself in transit station areas, is with regard to tree cover, permeable soil that allows filtered storm water drainage, and energy efficiency in the design and construction of buildings and their interconnections. With the advent of certification programs such as LEED for buildings, and other mandates that the County Council is currently adopting and considering, the real question here is how much of this kind of "amenity" should simply be required as a condition of the SM, and how much should be considered as an amenity offsetting the extra Use and Bulk of the OM.

As with the Spatial Amenities, a question for the current set of plans is how much definition needs to be given to the guidelines in the Plan, which can be custom tailored to each planning area, versus how much needs to be set up as criteria in the Zone, which, of necessity, must be universally uniform in all areas to which this ZDC is applied.

**(3) Public Facilities**

I include in this category facilities beyond the eight that are covered by the Adequate Public Facilities Ordinance (water, sewer, roads, transit, schools, police, fire, and health). The dominant two of these, that are relevant to Transit Station Areas, are urban parks and public parking garages. A significant part of the perceived success of the planning for the Bethesda CBD is due to the ownership and operation of strategically located public parking lots and garages. Similarly, the provision of several parks in strategic locations, under the ownership and operation of M-NCPPC, is an important element of this overall design.

Because parks and garages in precisely the right locations are so important to the efficient functioning of these higher density areas, and because land costs go higher in such areas, it is a significant issue to identify how these facilities will be funded. They could be considered as necessary elements of the Public Amenities category described above in (1).

This would be an extension of the scope of this category, in terms of its historical precedence in the CBD's. If these two local facilities were to be treated as a part of the OM density/amenity trade off, it would seem desirable to find a way to permit their up front cost to be spread over time. And, of course, the question of the proper nexus, between the total cost of the facility/amenity and the use of it generated by an individual property development, would need careful calculation.

The necessity to spread these costs over time, as well as over more than one development project, leads naturally to the conclusion that the way to go is to find some innovative mechanism for treating an entire TSA as a whole. Precedents for pieces of this idea exist in the examples of CBD Urban Districts, Tax Increment Financing, and local area Transferable Development Rights.

**(4) Urban Design Criteria**

The planning vision of "eco-urban community centers" carries with it the desire to achieve excellence in their design. Design has both a

Product and a Process dimension. The Product dimension needs expression in the form of guidelines, so that the Process dimension can achieve coordination over time among multiple participants in the development process.

The nature of these "guidelines" has been the topic of much discussion in recent years, given special impetus by the advocacy of the New Urbanist movement for what it has called "Form Based Codes". For readers interested in exploring this particular variation on Zoning, I am attaching a paper I wrote a few months ago[1] .

In it, I make the case that it is not necessary to make as drastic a shift away from Montgomery County's current Planning/Zoning System as FBC's require, in order to satisfy the desire to achieve design excellence in future TSA's. The "form" objectives of FBC's can be achieved by putting adequate "form" guidelines in Master Plans that are implemented by OM Zones.

If there is concern for Master Plan guidelines getting out of date over time, it would be possible to augment such Plan Guidelines with Administrative Guidelines that could be revised periodically without formally amending the Plan. The principle here would be that the Planning/Zoning System recognizes a hierarchy of descending levels of goal specificity, ranging from verbal word pictures of desired outcomes to precise diagrams of dimensions, with each step towards greater specificity being conditioned by the intention of the preceding guideline. This method is essentially the same in structure as the method used in legal reasoning with respect to interpreting constitutions and statutes.

The Staff is embarked currently on a three month seminar exploration of current principles and practices with respect to Urban Design. This may yield fresh insights into the pro's and con's of alternative ways to develop and administer more creative design guidelines. Two points are relevant to this paper: (1) The production of such guidelines, no matter whether they ultimately reside in the Plan of in the Zone, will take time to craft and approve; and (2) the degree to which design excellence is given credit as an "Amenity" in the OM project approval process should be given some thought.

[1] "Preliminary Thoughts on Form Based Codes & Traditional Zoning Ordinances", November 2. 2007

## (5) Affordable Housing

At present this objective is implemented through the Zoning Ordinance and related laws, with no provision for custom tailoring to an individual planning area, or for distinction between the requirements relevant to the SM versus the OM. The Moderate Dwelling Unit Ordinance is a mandate that applies uniformly to all residential construction projects with more than 20 dwelling units. The Work Force Housing requirement also is a mandate that does not distinguish between the SM and the OM, although it is only applied in selected transit station areas.

There is an element of developer choice in the MPDU law. If a developer chooses to raise the percentage of MPDU's above the mandatory amount of 12.5% to the optional amount of 15.0%, a Density bonus is allowed, provided that it is not effectively prevented from actualization by other legally authorized considerations that undercut the maximum density permitted by the ZDC.

But the principal observation remains, that the mandatory affordable housing objective has been given precedence over all the other regulations, except that of the maximum ceiling set by the ZDC. Whether this is a model that should be used for other objectives may be a question to consider.

## (6) Agricultural Preservation

This objective was the topic of my previous paper[2], discussed with the Board on January 24, 2008. A copy of this paper is attached for Board members. Others may access this paper by downloading it from the Planning Board's web site, Agenda Item #15, 1/24/08.

This paper dealt with three issues: (1) A Conversion Equation to allow TDR's (Transferable Development Rights) to be applied to non-residential receiving area sites; (2) The Proposal of the Ad Hoc Agricultural Policy Working Group, that a separate receiving area market should be set up for the transfer of BLT's (Buildable Lot Termination's); (3) Alternative possible solutions to the BLT problem

[2] "Potential Strategies for Resolving TDR Absorption Issues, January 22, 2008

that do not involve creating a new receiving area market.

In the intervening time, the Conversion Equation has been discussed further by staff, with a conclusion to recommend it for initial use in the draft TOMX/TDR Zones proposed for use with the new Twinbrook Plan[3] . Also, a new Staff Analysis of TDR Receiving Area Capacity estimates that, with the addition of this equation, there would appear to be enough receiving area capacity due to come on line, through future Master Plan Amendments, to accommodate all the remaining TDR's in the Agricultural Reserve that still may need to transfer.[4] It would appear that the Ad Hoc Group's concerns, about adequate TDR receiving area capacity, may be capable of being addressed within the expected course of events as new plans are developed.

The BLT proposal still presents a problem, however. Without additional staff work and discussion with stakeholders, it is difficult to see how a definitive judgment can be reached regarding the feasibility or infeasability of this proposal. The issue is whether new OM Zones can be crafted that can provide enough incentive for a receiving area developer to choose to buy a BLT that is worth six times the value of an ordinary TDR - which is the necessary price equivalency implicit in the Ad Hoc Group's proposal.

There are only two ways to try to estimate this. One is to do a number of economic "pro forma" simulations of alternative developer scenarios. Staff time has not so far been available for such data intensive calculations. The other is to talk directly to a number of representative developers and ask for their opinion. One such conversation that Staff did engage in produced the not so surprising conclusion that no developer would be interested. So, further analysis in pursuit of this idea depends on the assignment of more staff study.

In light of the letter from the Gaithersburg-Germantown Chamber of Commerce, objecting to even the TDR requirements proposed in the TOMX/TDR Zone for the Germantown Plan - and in light of analogous concerns being expressed by developers in the White Flint area, about how much the private sector will be expected to bear of the cost of OM requirements - it is my conclusion that the only way

[3] See Board Agenda, 3/27.08, Item #5-C
[4] See Board Agenda , 3/27/08, Item #5-A

this BLT market proposal might succeed, is if it is given priority similar to that accorded to affordable housing.

One can conceive of setting up a system in which BLT's (or TDR's) are just mandated to be some percentage of the OM bonus density, in a way similar to that by which MPDU's are mandated now. But there are problems with this idea, such as concern that such a mandate, added to that of MPDU and WFH, might cut off use of the OM altogether.

Fixing a sale price for TDR's or BLT's could get around this problem, but would require a different mechanism for selling TDR's than the current simple market price method. So, subtleties abound; and final answers take time to work through. AT issue is how much time should be given to further analysis, versus making a decision based on judgment in the light of current knowledge.

**Conclusions**

The factors outlined above provide a mental framework for alternative scenario evaluation. Every factor is related to every other factor. Changes in one suggest changes in another. Here are some thoughts.

1 Meeting the deadlines in the current Master Plan Work Program seems difficult enough, without contemplating any major change to the basic structure of the current Planning/Zoning System (e.g. Form Based Codes, etc.). If meeting this plan schedule is the most important policy objective, then revising the structure of the Zoning Ordinance should proceed on its own separate track. If, after careful thought, it seems desirable to restructure ZO, and with it the relationship between Zones and Plans, then come back later and bring them all into the new alignment in one major overhaul.

2 If this approach is selected, invest in a research task to evaluate the probable economic limits of privately financed development projects to absorb the costs implicit in the six public sector objectives outlined in this paper. Use the results of this task to decide what should be outlined as guideline criteria for the private sector's responsibility under the OM Zones to be used in the TSA's.,

including where the Density ceilings should be set for both the SM and the OM in each zone.

3 If certain amenities, facilities, and other features are to be made mandatory (c.f. Streetscape, LEED, TDR, BLT, etc.) in Standard Method Zones, as has been discussed and as MPDU's are now, make sure that these requirements can be stated so that they apply uniformly to all situations; or, alternatively, if they logically require adaptation to idiosyncratic situations, consider the pro's and con's of requiring Site Plan Review in Standard Method Zones.

4 Once a firmer description of the substantive character of these objectives is arrived at, determine the minimum amount of OM guideline criteria that need be retained in the OM ZDC, to satisfy legal principles of uniform treatment of property owners. Place the rest of these guidelines in the Master Plan, both as word pictures and as spatial diagrams. Simplify the new OM Zones as much as possible, by shifting as much idiosyncratic guideline material to the Plan as possible.

To deal with the Plan "shelf life" problem, consider adding a second set of "Administrative Guidelines" later, approved by the Planning Board with a finding explaining how these more detailed guidelines are found to be consistent with the less defined guidelines in the adopted Plan.

As precedent, note the existing TOMX-2 Zone, used with the adopted Shady Grove Plan, which defines the maximum density allowed, but also specifically states that the mix of uses and the spatial dimensions required shall be as described in the Plan.

5 Evaluate the pro's and con's of this method, of dividing Use and Bulk criteria between Zone and Plan, in the ongoing Zoning Ordinance Revision project. If a better system evolves, change to it.

6 Give special attention to the notion of creating TSA "Districts" that expand on the Bethesda CBD model, providing opportunities for spreading the amenity/facility costs equitably over all the properties and residents of these new "eco-urban community centers".

# Attachment: Preliminary Thoughts on Form Based Codes and Traditional Zoning Ordinances

**PRELIMINARY THOUGHTS ON**
**FORM BASED CODES & TRADITIONAL ZONING ORDINANCES**
Richard Tustian, November 2, 2007

The Department has launched an investigation of how form based codes might be useful as the Zoning Ordinance Reform project gets underway. Chairman Hanson has asked me to offer some perspective on this topic. Herewith are a few observations, offered just as food for thought, and subject to correction and improvement as we all investigate the current state of the art in more depth.

**Differences and Similarities**

First, a Form Based Code (FBC) has regulatory effect over private land use in the same way that a zoning code does - or a building code, fire code, road code, etc. Both are legally binding documents. Although an FBC contains a map that is often called a Regulating Plan, this is not a plan that functions as a guideline to discretionary decision making like a Sector Plan. Rather it is exactly analogous to the Zoning Map of a Traditional Zoning Ordinance (TZO). Precisely where the lines are drawn is very important to the decision about what can get built.

Second, this Regulating Plan map is accompanied by a set of regulations spelling out bulk, height, coverage, and other spatial restrictions that apply to different areas on the map. These are very similar to the same kind of spatial restrictions that are customary in a TZO, with the exception that, in a TZO, the locations where they apply on the map are keyed to the boundaries of spatial areas called "zones", whereas, in an FBC, they are keyed to lines designating the edges of streets and other open space areas dedicated to public use.

Said another way, the TZO focuses spatially on private property, and the FBC focuses spatially on the public property. Otherwise, they are similar in structure. Both can regulate use if they wish to, and both can regulate form if they wish to. Both are permitted by most state zoning enabling statutes, including the Maryland Regional District Act that governs Montgomery County. Both are ordinances, or codes, that have the force of law and that allow very little leeway for discretional interpretation.

To emphasize the distinction another way, form based codes simply take the powers inherent in zoning since the beginning (i.e. to govern use and spatial mass), and emphasize the spatial controls to the complete, or almost complete, exclusion of the use controls. How much control over uses is retained is optional with the municipality. Similarly, how much of the total municipal area is deemed appropriate to this form of zoning is a discretionary decision. A lively discussion is still ongoing within the planning profession as to how much " use" control

should be removed when a form based code is introduced, and how much of the total municipal area should be converted to this form of regulation.

I find the debate that sometimes ensues over this question to have its amusing aspects. It is a little like the beer commercial in which the football spectators battle over whether the beer tastes better or is more satisfying. I speculate that perhaps a part of this emphasis on the differences rather than the similarities could be a vestige of the long unresolved split in the planning profession between the "physical" planners, whose roots lie in architecture and engineering, and the "social" planners, whose roots lie in economics, sociology, law, and management. Certainly the term "form based codes" is a relatively recent invention of the architects, whereas "zoning" has long been perceived to be within the province of the lawyers.

So, to reiterate, the primary distinction between traditional land use zoning and form based codes is the emphasis of the one on private property "uses", and the emphasis of the other on public property "form". There is a bit of subtlety in the latter term, of course, in the sense that the public realm is essentially open space (streets, parks, plazas, etc.), which by definition cannot have a "form" per se. Or, put another way, its form is only manifested by the walls that enclose it, so that it is the "form" of the buildings that create the "form" of the open space.

Form in terms of open space is like Yin; form in terms of built space is like Yang. One cannot exist without the other. It is just a question of which one you decide should dominate the other; or, in a more win-win context, how the two will be brought together to form the most harmonious spatial marriage. Giving priority of place to the Yin of the street has long been the source of inspiration for this department's administration of the county's incentive zones. In this sense, there is nothing new for this department in the public realm emphasis that underlies the form based code idea.

**The Decision Making Process**

There is, however, an important way in which the practices of this department do differ from the practice implications of form based codes. This is with regard to the way that decisions are made about the details of the form. The current regulatory structure of this county consists of a decision making process that links a General Plan to a Community Plan to a Sector Plan to a Zoning Map (plus Regulations) to a Subdivision Map (plus Regulations) to a Site Plan Map to a Building Code, Fire Code, etc.

The first three are policy guidance documents. All the others are police power control documents, each one governing a specific but different set of criteria. The

linkage between the soft first three and the hard second three is the set of discretionary judgments made about the latter by the Planning Board after initial recommendation by staff. The linkage between the Zoning Plan, the Subdivision Plan, and the Site Plan and the codes that follow is made by County Government staff in coordination with Planning Department staff.

As recent experience has demonstrated, making sure that the coordination across all these steps, from general to specific, does, in fact, take place smoothly requires constant monitoring and process management. It is really the key to whether "comprehensive planning" is effective in guiding land development patterns or not. Ideally, there would exist a smooth continuum of ever more detailed refinement of the original planning vision until it is manifested in the specific form of buildings and infrastructure that we can see and touch in the real world.

So, let us follow the imaginary journey of a broad policy idea from the general to the specific.

1 Wedges & Corridors General Plan
Basically shows a boundary between developed land and undeveloped land, plus word pictures of visionary goals.

2 Corridor City Community Plan
Shows arterial streets and land uses by fairly large areas, plus word pictures of goals and more specific procedural instructions.

3 Central Business District Sector Plan
Shows all streets and land uses by blocks, plus detailed spatial "form" requirements, plus word pictures of goals and even more specific procedural instructions.

4 Zoning Map/Text
Shows property lines and zoning use categories for individual parcels, plus spatial criteria effective in each zoning category, plus closely defined descriptions of use criteria.

5 Subdivision Plan
Shows property lines plus street and infrastructure rights of way plus topography, plus some limited word explanations of a precise nature.

6 Site Plan
Shows street and infrastructure physical form, plus spatial location and appearance of buildings, plus landscape features such as trees, sidewalks, etc., plus some detailed supplemental word descriptions as necessary.

7 Building Code
Shows nothing specific to this site, but describes minimum structural specifications for interior and exterior of buildings.

8 Fire Code
Shows nothing specific to this site, but describes minimal condition of construction and spatial arrangement necessary to prevent fires.

So we have a process in which an original idea embodied in the General Plan moves through a series of discrete approval actions, from a very broad and sketchy form to a very precise and focused form. Each step in the process adds detail, but at the same time reduces the opportunity for choice. As the form of the built environment becomes ever more focused, the opportunity to shape the site differently is correspondingly decreased.

Although the range of discretionary choice narrows over time, having been circumscribed by the previous decisions, there remains always some opportunity to make choices about greater detail up to the point that the regulatory power reaches its limit under the law. But, by the time we reach the Building Code, not much discretionary choice opportunity remains. It is this fact that historically led to the Planning Department employing its own inspectors to check in the field on Site Plans, with their need for some onsite flexibility with regard to tree placement, etc., rather than rely on inspectors in County Government who were accustomed to inspecting for Building Code violations only, where the test was simply of a pass-fail nature.

From this process perspective (somewhat unique to Montgomery County's planning/zoning process), the basic difference between Traditional Zoning Ordinances and Form Based Codes has to do with the way that discretionary choice is factored into the decision making process. At present, Master and Sector Plans provide detailed spatial and verbal guidance intended to guide the more detailed shapes that become fixed by subsequent acts of Zoning, Subdivision, and Site Plan approval. The discretionary act, of interpreting just how closely the application of the last three "codes" shall adhere to the intention of the Plans, is vested in the Planning Board, with Staff recommendation preceding its decision.

If the present zoning categories were totally eliminated, and replaced with a form based code, the discretion of the Board and Staff to interpret the intention of the Plan would be removed from the subdivision and site plan steps of the process. The act of deciding the physical shape of a building project would have been shifted to the point, earlier in the process, at which the design of the form

based code is decided. In short, the adoption of a form based code shifts the point of application of design intelligence to an earlier stage in the development process, a point prior to the land owner having developed any specific proposal for his land.

The same thing is true for our existing Master/Sector Plan process, whenever the Plan includes extensive detailed maps, drawings, and instructions for the physical shape of buildings and structures. The difference is that the Plan is advisory, and requires a discretionary act of interpretation before the full force of the police power locks down the details; whereas the form based code is commanding, and leaves no room for such discretionary adjustment when the detailed project plan comes forward for approval. The implications of this difference have significance in several directions.

**Citizen Participation**

Before the use of optional method zones, that provided flexibility to developers but required public scrutiny of the design of the final project through the mechanism of the site plan, the citizenry of Montgomery County had become highly skilled in the mechanics of Euclidean Zoning. Euclidean Zoning is very precise in its control of permitted uses, in a way that is somewhat analogous to the precision of control associated with the building restriction lines of Form Based Codes.

Beginning with Floating Zones in the 1960's, and expanded with Central Business District Zones, Transit Station Area Zones, Planned Development Area Zones, TDR Receiving Area Zones, and more, the planning/zoning system in the county came increasingly to rely on the Site Plan as the pivotal instrument of land use management. Being under the aegis of administrative legal principles, Site Plans were still bound by the need to respect controlling decisions made in earlier actions, like the Master Plan and the Zoning Ordinance. But there remained considerable latitude to custom tailor project details to the idiosyncratic conditions of the site, the developer's initiatives, and the perspective of affected citizens.

In effect, an unwritten kind of soft "social contract" evolved historically over time, between the Planning Board, County Council, and civic associations. The civic associations would agree to relinquish their insistence on retaining the procrustean bed mechanisms of Euclidean Zoning, to allow the development flexibility inherent in the new optional method zones, on condition that the Site Plan Review mechanism was open to public participation, albeit a limited participation consistent with the principles of administrative law.

This system has been in effect now for over 30 years, and has yielded the kinds of mixed use development and streetscape amenities evident in Bethesda, Silver Spring, and other locations. When the system fulfills its promise, as it seems to have done in Bethesda and Silver Spring, the general public seems satisfied. When it breaks down in some particular or other, as in Clarksburg, the public may raise the problem to the level of a political issue that can take considerable time and effort to resolve. It is important, therefore, to keep this history in mind as the agency investigates the utility of shifting to form based codes.

**Effects of Removing Use Controls**

One of the arguments for Form Based Codes is the presumption that, by eliminating the designation of specific uses from the regulatory instrument, the achievement of mixed use development (i.e. residential, commercial, and employment uses) can be facilitated. Since there is no governmental restriction under FBC, other than the spatial criteria relevant to the design of the public spaces, there is no need to interfere with the private market building whatever proportion of uses it wishes. Since mixed uses are increasingly being perceived as desirable for various environmental reasons, anything that simplifies achieving them must be a good thing.

Of course, it is still possible to retain control over the mix of uses in an FBC. But often the argument is made that this control should be relinquished in favor of letting the market decide. There are undoubtedly some urban situation in which this may be a very good thing to do, to achieve the planning objectives for a particular place. On the other hand, there may be places where removing the use controls will be counterproductive to achieving these policies.

One of these is where we may wish to achieve some planning objectives by shifting existing zoning from commercial to residential, or vice-versa. This has relevance to some issues in Montgomery County where the balance between Jobs and Housing is relevant to the degree of traffic congestion desirable.

Another is with respect to the Moderate Dwelling Unit Ordinance (MPDUO). Without an area being controlled in terms of its Dwelling Unit Density, it becomes difficult (impossible?) to calculate how additional DU bonuses should be calculated. The bonus provision of the MPDUO is a necessary component of the mechanism, without which serious issues arise. The MPDUO has been, and is likely to remain, the single biggest source of affordable housing in the county for over 30 years.

Other complications that may be easier to overcome, with regard to existing management instruments, may come to mind with more thought given to this

aspect. The central idea of this paper, however, is not to throw cold water on the idea of being open to, indeed enthusiastic about, learning from the New Urbanist embrace of Form Based Codes. Rather it is simply to inject a note of caution, and comprehensive evaluation of possible problems that may need to be dealt with, before assuming the an FBC approach is well adapted to our particular planning system in Montgomery County.

Attachment: Staff Report: MCPB Item #15 January 24, 2008

**MCPB**
**Item #15**
**1/24/08**

MEMORANDUM

DATE: January 22, 2008

TO: Montgomery County Planning Board

FROM: Richard Tustian
Policy Advisor
(301) 495-4659

SUBJECT: Memorandum for Briefing On
Potential Strategies for Resolving
TDR Absorption Issues

## POTENTIAL STRATEGIES
## FOR RESOLVING TDR ABSORPTION ISSUES

Richard Tustian[1], Policy Advisor, January 22, 2008

### PREFACE

This paper seeks to be useful to readers who are deeply immersed in TDR issues, as well as to others who may not be as familiar with the background. The former may wish to go directly to page 20 for a summary of conclusions.

The purpose of this paper is to link issues associated with the recommendations of the Ad Hoc Agricultural Policy Working Group (Ag Group) to issues associated with the development of new master plans for the 355/270 Corridor, including Twinbrook, White Flint, Gaithersburg, and Germantown. The paper is intended to facilitate discussion among Staff and Planning Board as new Master Plans and Zones are being developed.

### INTRODUCTION

The report of the Ag Group (Ag Report) runs to 47 pages plus a 41 page appendix. Its chapters address Child Lots, Sand Mounds, Transferable Development Rights (TDR's), Building Lot Termination (BLT's), and Pending Legislation. This paper deals only with TDR's and BLT's, and only with the dominant zoning questions raised by the Ag Report. Any complete response to all of the Ag Group's proposals must come in some other document.

Concerning TDR's, the Ag Report recommends, in general terms, that a greater market in receiving areas be created. This should be done by adding TDR purchase requirements to: (a) floating zones; (b) mixed use zones; and (c) commercial and industrial zones, using a conversion factor that equates one TDR to some appropriate number of square feet of development floor space.

[1] This paper was requested by Planning Board Chairman Hanson and Acting Planning Director Wright. The author functioned as lead planner of a group of staff who contributed many ideas and analyses. Although the paper is a construct of the author alone, and represents his personal perspective, the collegial contribution and support of these other staff should be recognized, in particular the work of Jacob Sesker, Pam Dunn, Roselle George, Callum Murray, Judy Daniel, Debra Daniel, and David Lieb.

Concerning BLT's, the Ag Report recommends, in general terms, that a new system be created whereby BLT's would be designated as a category separate from regular TDR's. The purpose of this system would be to permit Ag Reserve land owners to sell these BLT's at a price comparable to their value when used for construction on site, but without the necessity of these rights being used toconstruct houses in the Ag Reserve. In short, the proposal would create a transferable residential development right analogous to the existing TDR category, but one that is valued at a much higher price than TDR's have achieved over time when sold to the receiving area market in the county.

## (A) THE GREATER TDR MARKET PROPOSAL

### Creating A Conversion Equation

The first point to consider is the feasibility of creating a conversion equation that will allow TDR's to be measured in terms of square feet of non-residential space. This is a statistical consideration.

The original and still existing TDR program is measured in terms of residential dwelling units. That is to say, its smallest unit of measurement is one residential dwelling unit. One TDR means one dwelling unit. As used in the county so far, this unit of measurement does not distinguish one dwelling unit from another in terms of size, quality, or cost. The TDR trading system avoids the complexity of spatial/quality/cost analysis of dwelling units by letting the free market of willing sellers and willing buyers decide what is the appropriate price for a TDR at any given time.[2]

Commercial, industrial, and mixed use zones, however, measure their capacity in terms of square feet of building floor area. Hence, to set up a system whereby TDR's can be bought by developers in such zones, it is necessary to create a conversion equation that equates one dwelling unit to some number of square feet of non-residential building floor area. To accomplish this, it is necessary to think through the problem of what is the best way to calculate the equivalency. There are multiple ways of approaching this problem. Here is the way that we found most simple and, therefore, most attractive.

[2] Some time after the initiation of the TDR program, an amendment was adopted to permit multi-family zoned receiving areas to receive a bonus density of more than one condominium/apartment unit in return for the purchase of one TDR. This sub-topic will be examined later in this paper.

**One Possible Conversion Equation**

Both the dwelling unit and the square foot are spatial units. The first is just bigger than the second. One dwelling unit comprises many square feet. So, the first step is to establish the average number of square feet per dwelling unit. We know that dwelling units come in many different sizes, ranging from large Single Family Detached houses, through smaller Townhouses, to smaller Condominium/Apartment units. Hence, start the conversion formula by selecting an average size dwelling unit to represent the whole spectrum of dwelling units in the county.

With this average dwelling unit now expressible in square feet, attach an average price to this average dwelling unit. This will yield an average per square foot price for this average dwelling unit. We now have in hand one half of the conversion equation. The next step is to calculate the average price of a square foot of non-residential space.

With a price per square foot number to represent the average residential dwelling unit, and a price per square foot number to represent the average nonresidential building floor space, it becomes possible to hold the two prices constant, and find the spatial equation under which the two different use types have equal value on a per square foot basis.

The details of the calculation performed by staff using this method, and the assumptions made about mean/median values, are outlined in Appendix A attached. The conversion equation produced by this exercise is as follows:

| | |
|---|---|
| **1,800 square feet Residential Space =** | **1,500 square feet Office Floor Space.** |

*which can be used a surrogate for*

| | |
|---|---|
| **1 Transferable Development Right =** | **1,500 square feet Non-Residential Floor Space** |

**The Conversion Equation in Context**

It must be recognized that a lot of "averaging" is involved in this method. Median new residential dwelling units (built between years 2000 and 2005) range in size from 3,400 square feet for Single Family Detached units, through 1,800 square feet for Townhouses, to 1,200 square feet for Condominium/ Apartment units. Similarly, residential prices range from

millions of dollars for Single Family Detached units to thousands of dollars for Condominium/ Apartment units. We chose the average value of a new Townhouse at 1,800 square feet as the central place to choose across this spectrum of price and size. This is preliminary judgmental choice that could be refined if time is available for further analysis.

On the non-residential side, there is also a wide range of building types and values. Non-residential uses and zones include Industrial, Office, Commercial, and Mixed Uses (which may include not only mixtures of the above three but Residential as well). In general, Office floor area prices fall somewhere between Industrial (lower) and Commercial (higher). We chose the average value of new Class A Office space as the central place to choose across this spectrum of price. This also is a preliminary judgmental choice that could be refined if time is available for further analysis.

Obviously, choosing different points to represent the average across these spectra would change the resulting spatial equation. With further work, it would be possible to take this statistical analysis to a deeper level. But if we keep the algebra of the method as outlined above, it is an approach that, in effect, says: If a developer in a receiving area is prepared to pay the price of a median residential TDR, he/she is assumed to be prepared to pay the same price for a non-residential bonus in the amount of the square foot area set by the conversion formula.

Common sense tells us that this equivalency of value will not prevail for every developer's situation. Each situation will be affected by its location, its zoning, and its owner's marketing desires. Still staying with this basic method, the next question is: Is one conversion formula enough to be used for all non-residential receiving area uses, or should different conversion formula be crafted for different non-residential uses? For example, this same basic method could be used to create a conversion formula that would be different for different nonresidential uses (e.g. one measure for office, one for commercial, one for industrial, etc.).

The answer to this question deserves some thought. If all existing employment zones (e.g. industrial, office, commercial) are to be converted to TDR receiving zones, perhaps different conversion equations are best. On the other hand, if the dominant use of the conversion equation is to be in new mixed use zones, perhaps one equation is best. More background about planning for incentive zones, like TDR receiving zones, is discussed further below in Section C, Bonus Density Capacity in Receiving Areas.

**Other Methods for Calculating a Conversion Equation**

Other basic methods for calculating an equation are conceivable. One quite different alternative method would be to construct a conversion equation based on simulating the economic pro forma calculations of a wide variety of receiving area developer situations. This would seek to estimate how much the bonus density provided by the purchase of a TDR would be worth to a developer if the developer had the choice of using it for residential or for non-residential use.

This would be a complex operation, a bit time consuming and requiring data collection. It would necessitate the construction of a number of use/building typologies - enough to embrace the range of situational possibilities, and then to simulate their pro forma calculations, and then to average across all these to arrive at an "average" conversion equation for each use/building type for which there is a separate zone.

A variation on this theme seems to have occurred some years ago, when the zoning ordinance was amended to equate one TDR with more than one dwelling unit in multi-family zones. As I understand the history of this action, a case was made by the development community that there was not enough net marginal value, in the addition of one extra condominium/apartment unit, to justify the market price of a TDR. Accepting this argument, the County changed the ordinance.

This illustrates a phenomenon that affects the marginal value of bonus density. In general, as base density goes up, the marginal value of a unit of bonus density goes down. When zoning for single family detached housing goes from a base density of four units to the acre to eight units to the acre (a not uncommon ratio for some receiving areas in times past), the marginal increase is 100%. But when garden apartment densities increase from a base of 20 units to the acre to 30 units to the acre, the increase is only 50%.

As base densities rise, the bonus densities cannot rise also at a constant percentage of the base, because the cumulative total begins to hit against either a height or volume limit (which is relevant to compatibility of receiving areas with surrounding development) or the necessity of a structure type shift , such as underground parking (which increases costs and skews the marginal value relationship). Only further work of the "pro forma" nature outlined immediately above seems capable of really evaluating this potential pitfall in the use of a one-size-fits-all conversion equation.

Arguing against the creation of a different equation for each different residential or non-residential use or zone, is the generic principle that all regulatory schemes should be kept as simple as possible. Avoiding the bureaucratic problems that complexity creates - problems of public understanding, accounting complexity, administrative efficiency, etc. - is a cardinal virtue in public administration. This basically was the reason that a conversion equation to apply TDR's to non-residential zones was not attempted at the beginning of the TDR program in 1980.

In short, while it may well be possible to invent a method of arriving at a conversion formula that statistically is more custom tailored to the complexity of the receiving area landscape, how well may it stack up against the value of administrative simplicity? If time permits, I would argue for significantly more research of the pro-forma nature before answering this question.

It is assumed that the next phase of this work project will be for the Planning Board to give direction about whether to pursue the conversion equation idea further, and, if so, how much additional work to do on refinement of the numbers.

A preliminary conclusion can be offered here, however. It seems technically feasible to open up a new market for TDR's, by converting existing nonresidential zones to optional method zones that contain a bonus density reserved for TDR purchase. A preliminary conversion equation could be:

1 Transferable Development Right = 1,500 square feet Non-Residential Floor Space

The next question to ask is: What other considerations should be evaluated before concluding that this is a desirable and workable proposal? Such considerations are dealt with below in Section C, Bonus Density Capacity in Receiving Areas.

**(B) THE BLT MARKET PROPOSAL**

**The Ag Report Proposal**

The purpose of the BLT proposal is described in the Ag Report as being twofold: (1) "to reduce the number of buildable lots in the Agricultural Reserve while providing equity to landowners" *(note -an equity concern)*; and (2) "to preserve by easement as much

farmland as possible" (*note – a preservation concern*). To understand the latter point better, it is relevant to make clear a fact that has not always been prominently pointed out in documents and discussions about the relative effectiveness of the agricultural preservation program in Montgomery County.

For some reason, that is not clear to anyone with whom I have spoken so far, the legal instrument called a "Transfer of Development Rights (TDR) Easement" does not, in fact, put an easement on the use of land such as to prevent any use other than cultivation for agriculture. It simply reduces the number of original TDR's granted to the land under the Rural Density Transfer Zone, in the amount of whatever number of TDR's are "severed" by the easement transaction.[3] This "TDR Easement" might more accurately be described as a "Reduction in TDR's Easement".

What remains, after a TDR Easement is severed, is the residual number of original TDR's still available, which includes those development rights that could, under the zone, be used to actually build houses on the land. These are the BLT's. For example, a 100 acre farm is entitled to 20 total TDR's, of which 4 are BLT's (100 acres divided by 25 acres per house = 4 BLT's).

Thus, until such time as the owner severs his/her BLT's, there remains a threat to the continued agricultural use of the land, insofar as exurbanite mansions on 25 acre lots constitute a threat to farming. The degree to which the development of such new houses, at a density of one house per 25 acres, does, in fact, constitute a threat to the continued use of the land for agriculture is the nub of this BLT issue.

Many supporters of the Ag Reserve, as well as those supporting this BLT proposal, seem persuaded that such development does, indeed, constitute a serious threat. The case seems to run somewhat as follows. Houses on 25 acre lots tend to be very large and expensive, basically exurban estates. Families living in such houses typically derive their wealth from sources other than local agriculture, and have lifestyles that give preference to open space fields and woods, often with horse riding facilitiesthan to operations that produce food, such as corn, cereals, produce, fruit, beef, milk, etc..

Scatteration of such houses at these densities, over the agricultural

[3] Note - A severed TDR can be sold or held for future sale to a receiving area.

landscape, not only creates a fragmentation of the residual farmable open land, a fragmentation that makes farming operations difficult in time and space. It also builds a community of political resistance to the "industrial nuisance" aspect of food production. In short, a pattern of such houses at these densities is incompatible with a healthy food production economy.

This line of argument is conceptually the same as that used to justify the original establishment of the Ag Reserve and its supporting implementation instruments, although the threat in 1980 was from fragmentation into five acre housing parcels. rather than 25 acre parcels. The comprehensive intent of the Ag Plan was to preserve not only farmland, but also farming operations. As time goes on, and the nature of farming operations changes in response to global and economic conditions, the question becomes how best to implement the basic principle that preserving local food production is an extremely valuable and important public purpose.

**Alternative Possible Responses to the Ag Group Proposal**

To be effective, the Ag Report's proposal for a BLT system requires a source of funding. To satisfy this requirement, the Ag Report proposes two possible sources: (1) county government funds set aside for farmland easement purchases, plus a portion of the transfer tax; and (2) a new market driven TDR program, whereby BLT's can be sold to receiving areas in non-residential zones.

Upon closer examination, it is apparent that, to achieve a price comparable to what a BLT could command in the market for actual residential construction, the amount of money currently available in the first funding source (government) is likely to be insufficient. The annual estimate shown in the Ag Report would buy only a relatively few BLT's at a price equivalent to their market value for construction. Hence, the burden of testing this BLT proposal seems to fall primarily on the second funding source mentioned above, a new TDR system for BLT's.

This second proposal is the focus of this section. But it seems desirable to avoid being too narrow in examining this topic. Thus, consideration of the factors at work has led me to the conclusion that there are four basic conceptual approaches to this residential construction threat problem: (1) A Tax Based System; (2) A Market Trading System; (3) A Regulation Based System; and (4) A Hybrid System, composed of elements from the first three.

Under a Tax Based System, some continuing source of funding would be established, based on tax revenue sufficient to permit the sale of enough BLT's over time to greatly reduce the threat to farming.

Under a Market Based Trading System, two approaches might be taken. Under the first, BLT's would be valued at some multiple of a regular TDR, and the receiving area capacity for TDR's would be expanded to accommodate this additional supply. Under the second, BLT's would be established as a class of TDR's separate from the other TDR's, and a new receiving area market for these BLT's would be established through new zoning. The latter is what the Ag Report recommends.

Under a Regulation Based System, new regulations would be applied to the Ag Reserve Zoning that would reduce the harmful effect of new house construction on the ability to farm effectively. These regulations would affect the way in which houses constructed would be sited on the land, or otherwise shaped and conditioned so as to minimize their effect on productive agriculture.

Under a Hybrid System, certain elements from among the first three systems would be combined to form a composite system, crafted so as to ease the pressures that each of the first three approaches tends to put on collateralconsiderations.

**(1) A Tax Based System**

Establishing a tax or fee based system that provides funds to buy BLT's obviously is the most direct and simple way of providing equity to Ag Reserve landowners without their having to build houses on their land. The difficulty is the political problem of making a governmental commitment, in the face of competing public service needs, to provide the amount of revenue required to approach the market sale prices of such buildable lots.

Staff has estimated that there are about 1,600 buildable lots remaining in the Ag Reserve (see Appendix B), after allowing for deductions from zoning capacity for inability to achieve septic tank approval and other relevant considerations. Staff data suggests that prices for such lots hovered around $375,000 (possibly more) during the housing bubble of the last five years. Under current recessionary trends, this market has dropped off, and housing prices generally have begun to decline. So it is difficult to peg any particular price in a fluctuating economy.

But if we just use recent peak prices as a guide for sketch approximations, and assume that farmland prices at the same time were about $5,000 per acre, then a BLT would retain a residual farmland value, after it was put under easement, of about $125,000. Subtracting the residual farmland value from the market value, we are left with an easement sale price of about $250,000. To extinguish all the remaining 1,600 BLT's through easement acquisition, under this scenario, would take, therefore, about $400,000,000.

Of course, this could be accomplished over quite a few years. But if the program were to be completed in 20 years, it would take about $20,000,000 per year in constant dollars. The amount of money in the 2008 budget, that might be available for this program, was estimated in the Ag Report (before current budget shortfalls were projected) to be perhaps as much as $6,000,000.

We could reduce these numbers significantly to guesstimate their level under a more normal economic scenario. But funding a direct easement purchase program for BLT's, sufficient to extinguish the BLT's, would still appear to require a significant increase in tax based revenue.

Another way of assessing the funding magnitude of the BLT extinguishment need is to compare it to the TDR extinguishment need. The recent staff report, called "2007 Tracking Transferable Development Rights", estimates that there are close to 5,000 TDR's remaining to be sent to receiving areas, assuming that all of them needed to be converted to money (many of those that have been severed but not sold are held by government). If we count only those TDR's that have not yet been severed, not counting BLT's, the number is much less - 1,500.

Staff data suggest that the market value of TDR's may have reached as much as $40,000 during the housing bubble of the last five years. If the TDR extinguishments need is 1,500 units, then its cost in dollars, at $40,000 per unit, would be $60,000,000. If it is 5,000 units, its cost would be $200,000,000. Both costs are well below the $400,000,000 BLT estimate based on relative real estate values from the same time period. Yet another way to compare the relative magnitude of BLT demand to that of TDR demand is to compare their relative prices above. At $250,000 and $40,000 respectively, one BLT is worth more than six TDR's.

Now we must emphasize again that these real estate values come from the peak of an unparalleled housing bubble that is now beginning its descent towards something more normal. But the relationship between

the magnitude of the total BLT value and the total TDR value still has relevance for evaluating the Ag Report proposals, even if the market figures decline for both kinds of TDR's.

**(2) A Market Based Trading System**

Two ways of crafting such a system for BLT's were outlined above. The easiest would be to set up a system whereby BLT's are converted to TDR's, by being given an abstract dollar value that is some multiplier of the value of a regular TDR. The receiving areas of the county would then be expanded to accommodate this larger supply of TDR's, including use of a conversion equation to allow opening up the non-residential receiving area market.

This method is easiest because it would not require changing much about the existing TDR system, except for enlarging the receiving area capacity by expanding it into the non-residential zones. However, this method would not directly address the perceived threat from the buildable lots. By simply enlarging the supply pool of regular TDR's, there would be no incentive for landowners to put an actual conservation easement on their residual buildable lots. Unless a new form of easement, different than the existing one for TDR's, is put directly on the buildable lots, the threat from 25 acre estates would not be reduced by this market system.

The second method, as recommended by the Ag Report, would be more effective in terms of its mechanics. BLT's would be set up as a separate category of TDR's. A new market for them would be established by: (1) changing the zoning in nonresidential receiving area zones to provide for optional method bonus densities in return for BLT purchase; (2) by using a residential to non-residential conversion equation to establish the bonus density criteria; and (3) by creating a new easement mechanism, applicable only to BLT's, that removes all uses except agricultural ones from specific parcels of land.

There is an uncertainty hovering over both of these methods, namely the ability to find enough receiving area capacity to accommodate the number of remaining regular TDR's that still remain in the Ag Reserve, in addition to the 1,600 net number of BLT's that need a home. As mentioned above, Staff estimates that we need additional receiving area capacity in the amount somewhere between 3,000 and 8,000 TDR's. Comparing this to the 9,000 TDR's that have been severed from the land since 1980 (25 years +), it is clear that the combined TDR/BLT needs, if totally placed on the market trading system, represent a significant

challenge.

Ignore, for the moment however, this question of whether there is enough total capacity in the overall receiving area in the future. As a stand alone proposition, this second BLT system, as proposed by the Ag Report, seems to be workable from a technical perspective, although obviously there would remain a number of legal and administrative details to work through.

The more interesting questions arise when we come to consider the effect of this BLT system, plus the TDR needs, on the existing zoning regulations and procedures. Specifically, what kind of burdens would this system place on the new optional zones that would need to be created to accommodate these BLT's? These questions are addressed further below in Section C, Bonus Density Capacity in Receiving Areas.

**(3) A Regulation Based System**

The only alternative, to a system that collects money to purchase BLT's at market value, either from the government or from a trading system, is either: (1)to change the RDT Zone to require a minimum residential lot size greater than 25 acres (100?); or (2) to re-examine the original question of how much of a threat to agriculture is posed by exurban mansions on 25 acre lots.

Given the history of the TDR program in Montgomery County, and the strong support of so many people for a continuing partnership between the urban community and the farming community, no one, to my knowledge, has suggested considering the first action. This leaves the second alternative above for possible consideration.

The argument outlined at the beginning of this section makes it clear that there are two characteristics of BLT housing that create most of the problem. One is the detrimental effect on farm operations caused by the fragmentation of the landscape by the new houses, and, more importantly, the way the rest of their lots are used for scenic landscaped surrounds. The other is the cultural climate created by the new exurban migrants, with their presumed aversion to the "nuisance" aspects of farm operations.

Of these two, the more serious effect would seem to be the first. Strong right-to-farm laws could be expected to be able to overcome the second problem, at least sufficiently to be reduce the actual impact on farm

operations from exurban political opposition. But land fragmentation makes a more immediate impact on operations and efficiency, especially for crop farming that requires equipment to have easy access to large contiguous fields of monoculture crops. And this kind of farming tends to be the dominant mode at present. It allows relatively small numbers of farmers to grow food on large acreages of land, through the use of mechanical equipment.

A shift in the dominant kind of food grown, towards vegetables, fruit, and related smaller scale operations, would allow farming to continue on smaller plots of ground than is necessary for crops that require large fields to be efficient. Such a shift is often mentioned as the necessary next step, in literature assessing the coming impacts global warming and energy shortfalls. Once energy costs go high enough, the importance of producing food closer to home will become evident, is the thrust of these arguments.

In such a sustainability scenario, a house on a 25 acre lot would not create a farming obstacle, from an operations perspective. As long as the house was not located so as to ruin effective use of the good soil, each 25 acre residential plot could operate like a small farm. A significant obstacle to food production would still remain, however, if the house is occupied by people who do not want to use the land for farming, and/or if the house is located on the best soil. This observation leads us back to the second obstacle mentioned above, the lifestyle character of the people who want to live in the kind of houses that currently are the dominant market for on site BLT houses.

The dilemma here, of course, is that it is precisely this character that makes the BLT worth so much money in the real estate market, and provides such a temptation to the farmland owner to sell. The only way, that I can think of, to keep the sale price of the BLT high in the residential real estate market, and still reduce the impact of new houses on the farming landscape, would be to limit the size of the lot around the house, and require that all such houses, other than those occupied by families with a direct tie to farming, be clustered together in locations selected for their minimum disruptive effect on the farming landscape.

The difficulty with this idea, of course, is the need to provide sewerage for these new houses. In order to use septic tanks, soil must drain well enough and there must be adequate area for the septic field. The use of sand mounds has been encouraged by some as a good way to overcome this problem, and disparaged by others as an inappropriate subversion of

the original intent of the Agricultural Preservation Plan. The Ag Group's Report makes one proposal for dealing with this controversy, and I believe consideration of this matter is still ongoing.

This paper is not the place to delve into this topic, but it is necessary to recognize that the sewerage problem is one major obstacle to the above idea of clustering BLT houses on small lots. Another major obstacle could present itself if it should turn out that the best locations for such clusters of houses were in areas that are classified as forest. A related impediment could be the matter of impervious footprint, with its deleterious effects on the environment.

It is conceivable that there might be ways to overcome, or at least ameliorate, these problems (e.g. innovative small treatment systems and hamlet location planning) that could be explored, if the concept held any interest for policy makers. Such a regulatory approach undoubtedly would not satisfy the aspirations of all who would prefer to see the threat of BLT development extinguished by purchase of easements. It is presented here only to provide a more comprehensive conceptual overview of alternative strategies that may need to be considered in the event that neither a Tax Based System nor a BLT Market Trading System is considered to be feasible.

**(4) A Hybrid System**

I will not spend a lot of time here speculating on whether it would be possible to cobble together a useful marriage of elements from the first three alternative conceptual systems. Some obvious possibilities present themselves.

Under a Tax Based scenario, further funding might be found through creative thinking about other sources of revenue. For example, for the past two years there has existed an expanded federal tax credit for easements, and I am given to understand that it is possible that this law may be extended by the current Congress.

This provision, that expired on December 31, 2007, provided a 100% forgiveness of federal income tax for up to 15 years, with the length of time being calculated as the market value of the development right easement divided by the farmer's annual income over time. While this does not amount to the sale price of a BLT for construction, it could amount to a percentage of this equal to the farmer's tax bracket (e.g. 28%).

Another funding possibility might be the use of Installment Purchase Agreements that may increase returns to the farmer using the leverage of time and interest rates. I am not a tax lawyer, so I may be mentioning things that already have been examined in great depth already by local experts. The point is simply that further work in this direction is at least a conceivable avenue to explore.

Under a Market Based Trading System, one could consider the idea of settling for a system that would be capable of providing only a portion of the total supply necessary to extinguish all the residual BLT's.

Under a Regulation Based System, it might be possible to develop a BLT clustering plan that could ameliorate, at least to some extent, the problems created if BLT's continue to be sold for house construction.

## (C) BONUS DENSITY CAPACITY IN RECEIVING AREAS

### Zoning Districts in Perspective

Receiving area zones are part of a family of zoning types that may be called "Incentive Zones". Incentive zones have two parts: (a) a "base" density ceiling, under which a property developer is entitled to build without any further governmental review, other than obtaining permits to meet various code provisions, such as subdivision, building, fire, occupancy, etc.; and (b) an "optional method" density ceiling, greater than the base density ceiling, for which the developer may apply, and which may be granted by the Planning Board, provided that the developer meets a set of objectives that are used as a benchmark by the Board during the process of Project and Site Plan Review.

Before incentive zones, with their built-in optional method guidelines, there developed in the State of Maryland an earlier form of optional method zoning called Floating Zones. These zones also contain criteria that must be met in order to for them to be approved for a given site, and they also require a developer to request them, rather than having them imposed by governmental fiat, as is the case with traditional zoning (often called "Euclidean Zoning" after the court case that first endorsed zoning in 1926).

Floating Zones got their name because they were not localized in space until they were brought to ground by a successful developer petition. They "floated" above the landscape, just as a set of restaurant menu options "floats" above the table in virtual space, each zone with its own

characteristics set forth in criteria that must be met to ensure that, when the zone is applied to a given location, the marriage of use and location will produce an amenity rather than a nuisance.

The Floating Zone was an invention that represented a halfway house, between a government initiated Euclidean zoning pattern that might not provide enough opportunity for developer initiated creativity and change, and a developer initiated "spot zoning" pattern that might not provide enough spatial continuity and coordination to achieve the zoning goal of community and county wide land use compatibility and amenity . An example of the latter system, that is common in many other jurisdictions, is the landowner "proffer" system of rezoning one parcel at a time, and negotiating the conditional criteria on an ad hoc and idiosyncratic basis.

Incentive Zones were an evolution of the Floating Zone concept, which married a traditional Euclidean base zone, which could be assigned to locations by governmental fiat, with a Floating zone optional method, which could only be assigned to the land through a request of the owner. In essence, Incentive Zones incorporate a Floating Zone within a Euclidean Zone, thereby affording government the ability to take the initiative in prescribing where certain kinds of uses and densities of a general nature should be located, while at the same time allowing for fine grained creativity and timing by individual parcel developers.

The key point to extract from this history is the legal importance of the distinction between the base capacity of an incentive zone and its cumulative bonus capacity. How these are structured in any given incentive zone is critical to how much the bonus density will be used in practice to achieve desired planning objectives.

**Planning for Zoning Types and Their Locations**

The planning theory underlying the structure of these zones is that their base density should be considered acceptable for the zone's location (in case the developer chooses to not apply for optional method), and that their optional method density ceilings also should be considered acceptable (in case the developer does choose to apply for this).

The fact that two alternative densities are both considered to be acceptable for one location has sometimes been difficult to understand by people who are attracted to precision. In particular, some discussion in the past revolved around the question of whether an adequate public

facilities (APF) ordinance was compatible with incentive zoning. I think this was dealt with by reference to planning principles that used the optional method ceiling as the basis of APF calculations at the planning stage, and that used the actual project proposal as the basis at subdivision and project plan stage.

Another aspect, that must be kept in mind in the planning exercise, is the relationship between the uses, densities, and heights of the new zones compared to these same attributes of the existing zoning in place. Calculations of this nature are necessary to estimate how much residual bonus density capacity is likely to be available in different areas, as well as over the county as a whole . Both are significant, but the latter is more pertinent to the overall TDR/BLT receiving area capacity question.

The main point here is that the assignment of base and optional method density ceilings is an art form that requires careful consideration of legal principles and how the incentive zone will work in practice. Too high a base ceiling can result in marginal or no use of the optional method. Too low a base ceiling can work against larger planning objectives if it results in actual development that forecloses the opportunity to achieve higher densities where such densities are desired. And estimating the effect on the market of any particular zone, and its location, must always be kept in the perspective of how many alternative opportunities for market development exist in some other part of the county or region.

The challenge of the Ag Report's proposals for TDR's and BLT's is to craft new zones that have a greater bonus capacity, and to give first priority in the use of this capacity to TDR's and BLT's, rather than to other possibly competing objectives. To consider this aspect, we must think about the number of other planning objectives, for the use of incentive zoning, that also clamor for attention.

**Evaluating Bonus Density Objectives**

At present, at least five public welfare objectives for incentive zones are on the table, based on recent discussions during Planning Board and Staff work sessions on master plans: (1) Public Amenities; (2) Better Design; (3) Environmental Sustainability; (4) Affordable Housing; and (5)Agricultural Preservation. As new plans move toward more compact and mixed use "Urban Villages" around transit served locations, all of these objectives become more important.

Public Amenities include the familiar elements pioneered in the Central

Business District Zones, elements such as attractive pavement materials, street trees and lamps and furniture and fountains and art, and space made available for community purposes beyond the right of way of the street layout (e.g. exhibit spaces, meeting places, theaters, etc.).

Better Design also has long been an implicit objective among the purposes of the Central Business District (CBD) Zones, under the general rubric of "Amenity". Lately it has received a new emphasis that is reflected in the acceptance by the real estate industry and the general public of various urban design principles promoted by the Congress for the New Urbanism (c.f. Form Based Codes, etc.).

Environmental Sustainability is an objective that also is implicit in the purposes of the CBD Zones, under the general rubric of "Amenity". Like Urban Design, this objective has been given new emphasis with the development of standard techniques for conserving energy, stormwater, and plant cover in the design of new buildings and streetscapes (e.g. LEED, etc.).

Affordable Housing has a 33 year history in county zoning, in the form of the Moderate Priced Dwelling Unit Ordinance, and its more recent extension into certain locations, called the Work Force Housing element.

Agricultural Preservation has a 27 year history in the County, in the form of TDR's for residential areas. What is new, in terms of Incentive Zones, is the proposal to extend the requirement to accommodate TDR's into non-residential areas. It is this proposal that brings pressure to bear on the question of how well all five of these objectives can be accommodated as new zones are crafted.

It should be noted that there is a significant difference between the first three objectives and the second two. The first three (Public Amenities, Better Design, and Environmental Sustainability) all pertain to the local physical character of the new place we want to create through the new zone. The second two are quantitative and economic objectives that derive from countywide needs rather than local spatial needs. Blending the local qualitative with the countywide quantitative seems to be one way to look at the challenge.

The question for the TDR/BLT proposals is: Can all of these five objectives be accommodated in one zone? How low does the base density need to be set, compared to the maximum bonus density, to ensure that developers can be expected to satisfy them all? Or alternatively, how high

does the bonus density need to be set to accomplish the same objective? Some history is relevant.

In the case of the Shady Grove Plan, a new zone was adopted, called the Transit Oriented Mixed Use Zone - 2 (TOMX-2). This was an incentive zone similar to the CBD Zones - and like them, intended for use in a transit centered mixed use area. A companion zone (TOMX-2/TDR) allowed for TDR's, but limited their use in the optional method to above a certain Floor Area Ratio (FAR). The bonus density between this level and the lower FAR ceiling for the base zoning was reserved for objectives other than Agricultural Preservation.

The Ag Report's proposals specifically recommend reversing this priority sequence in the future. Thus, the Ag Report's recommendations force a deeper evaluation of this bonus density capacity issue than has been needed heretofore. For example, consider the method of deciding among competing objectives recently explored by the Planning Board in the context or work sessions on the Twinbrook and White Flint Plans.

The Board's preferred position was that no ranking of objectives should be stated in the Zone or in the Plan, under the principle that it is important for the Planning Board to be able to make a composite judgment on each project, about the balance across the five objectives that it achieves.

This is certainly a reasonable way to proceed. It simply makes it difficult to analyze with any degree of rigor whether a BLT receiving area system could succeed in clearing the Ag Reserve of BLT's over time, or how many regular TDR's are likely to be absorbed by any given receiving area zoning. Some further evaluation of this topic seems desirable if the recommendations of the Ag Report are to be addressed directly.

The relevant passage in the Ag Report is "the County Council should adopt a policy whereby in any master plan, if a site is recommended for increased density, there should be an assumption that the increased density should be through the use of TDR's, unless there is a compelling reason to not require TDR's. We believe the burden of proof should be to prove why TDR's are inappropriate on a particular site, rather than to prove why TDR's are warranted."

Completion of this paper, in time to brief the Board on these issues on January 24, does not permit a continuing exploration, in writing, of further alternative ways to address this topic. It is perhaps most useful to

conclude with my own personal perspective at this moment.

**Concluding Remarks**

My preliminary opinion at this time, subject to revision if additional analysis can be performed, is as follows:

1 An equation for converting Transferable Development Rights (TDR's) from the Agricultural Reserve into equivalent square feet of nonresidential development, for use in receiving areas, can be established. To analyze how effective it would be in practice, in terms of actual TDR purchase amounts, requires more analysis. A preliminary equation is:

One TDR = 1,500 square feet of non-residential floor space.

2 If a Building Lot Termination (BLT) trading system, to extinguish buildable lots in the Agricultural Reserve is to be established, it needs to be a system separate from the existing TDR system. This suggests targeting new zoning for non-residential and mixed use areas, as recommended by the Ag Report.

3 To attract the desired high value of a BLT, the density bonus for a BLTneeds to be about six times the bonus for a regular TDR. This yields a preliminary residential to non-residential conversion equation of :

One BLT = 9,000 square feet of non-residential floor space.

4 A large portion of the total county capacity for new non-residential and mixed use zoning lies within the jurisdictions of Rockville and Gaithersburg, which at present do not participate in the Agricultural Preservation program. The Ag Report recommends finding ways to bring these jurisdictions into the program. Further work will be necessary to estimate the County's total holding capacity more accurately.

5 If this new non-residential and mixed use market is reserved for BLT's, it seems questionable whether there will be enough residual market to accommodate all the remaining regular TDR's. Further work will be necessary to estimate this more accurately.

6 Accordingly, if a decision must be made without the further study mentioned above, it seems more prudent to retain the potential new market in non-residential and mixed use zoning for regular TDR's, since that is a commitment already made, whereas there is not yet such a commitment to BLT's.

7 Even assuming that new receiving area capacity should be limited to regular TDR's, there remain significant issues to resolve about how the contending objectives for Optional Method Bonus Density in new zones should be prioritized (e.g. Public Amenities, Better Design, Environmental Sustainability, Affordable Housing; and Agricultural Preservation).

APPENDIX A

THE MARYLAND-NATIONAL CAPITAL PARK & PLANNING COMMISSION

January 18, 2008

## Memorandum

To: Dick Tustian

From: Jacob Sesker, Research & Technology Center, 301-650-5619

Re: TDR Residential to Commercial Conversion

**Finding**

**Commercial space is roughly 20% more valuable than office space. Approximately 1,500 square feet of commercial space has the same value as 1,800 square feet of residential space.**

**Introduction**

The TDR program in Montgomery County has been in place for a quarter of a century. Until now the program has served to provide purchasers of TDRs with additional residential density (measured in dwelling units). The Research & Technology Center was asked to advise the Planning Board regarding how to set a conversion rate in order to allow these instruments to be used to buy additional commercial or mixed-use square footage.

This was not, *per se*, an inquiry into the inherent value to developers of additional commercial density. The value of additional commercial density to developers is very project-specific, and depends upon the difference between the income generated by the extra density and the cost of building that extra density.[1] Instead, this inquiry involved simply a comparison between the sales value of residential space and the capitalized value of commercial space. *In essence the question herein addressed is: if a developer is willing to use a TDR now to by a certain increment of residential density, what would be a comparable or competitive increment of commercial density?*

[1] Neither the income nor the cost lends itself to tidy generalization. While the financial feasibility of using TDRs at a particular price can be calculated for individual projects using *pro forma* analysis of that project's costs and revenues, it is not practical to attempt to calculate that feasibility for all projects across Montgomery County.

**Assumptions**

The following assumptions were made in this analysis:

- In converting dwelling units to square feet, the analysis assumed that a townhome represents the most representative "base" dwelling type. This assumption is reasonable based upon the nature of current and future receiving areas, and the fact that townhomes represent a "midpoint" between single-family and multi-family development.
- While comparisons of the value of existing office space and existing residential space are informative, the most relevant comparisons are between the values of new office space and new residential space.
- "Commercial" for calculation purposes will be limited to office; however, it is envisioned that TDRs could also be used for retail density.
- "Office" is assumed to be Class A office space.

**Analysis**

*Step One: Convert Townhouse Dwelling Unit to Townhouse Square Footage*

According to the Census Update Survey, the median size of a townhome built in Montgomery County between 2000 and 2005 is 1,816 square feet.[2] Analysis of parcel file data shows a similar result, with a median size of new townhomes of 1,792 square feet. Given these numbers, it is assumed that one townhouse equals 1,800 square feet.

*Step Two: Calculate the Value (Per Square Foot) of a New Townhouse*

In 2006, the median price of new townhouses in Montgomery County was $ 518,510. Assuming a size of 1,816 square feet, the median price was $285 per square foot.

*Step Three: Calculate the Value (Per Square Foot) of New Class "A" Office Space*

According to the GVA Advantis (Q2 07) office market report, the average rent for Class A office space is $30.70. This average rent includes all Class A office space, no matter the age. It is assumed that the countywide average value of new Class A office space would be closer to $35 per square foot.[3] Accounting for operating expenses of 30% and the countywide vacancy rate of 10% and then capitalized[4] at 6% the value is $350 (capitalized at 6.50% it would be $323).[5]

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[2] As a reference point, the median size of SFD homes built between 2000 and 2005 is 3,348 square feet.

[3] Because there are relatively few new Class "A" buildings in the County, it is possible only to estimate the countywide average Class "A" rents for new office space. New Class A office countywide would probably range from $25 to $50, with trophy level rents of $45-$50 attainable in downtown Bethesda.

[4] In real estate, "capitalization" refers to the process of converting a net income stream from rentals to a sale value.

[5] "Korpacz Real Estate Investor Survey, Q3 07," Price Waterhouse Coopers. Cap rates of 6% and 6.5% are based upon the results of investor survey responses for the Q3 07 Suburban Maryland office market.

*Step Four: Establish a Ratio of the Values (Per Sq. Ft.) of Townhouses and Class "A" Office Space*

The value of new Class "A" office space, as established in Step Three (above) is roughly $323 to $350. The value of a new townhome, as established in Step Two (above), is $285 per square foot. New Class "A" office space is roughly 13% to 23% more valuable than new townhouse residential space. Put differently, new townhouse space is 12% to 19% less valuable than new Class "A" office space. [6]

*Step Five: Apply the Ratio of Values (Established in Step Four) to the Townhouse Square Footage (Established in Step One)*

New townhouse space is 12% to 19% less valuable than Class "A" office space. In order to determine how much office space has the same value as 1,800 square feet of new townhouse, the 1,800 figure is multiplied by 81% and 88%--doing so establishes a range of 1,458 square feet to 1,584 square feet. Based on this methodology, approximately 1,500 square feet of new Class "A" office space has the same value as 1,800 square feet of new townhouse space.

**Implications**

The Planning Board has yet to determine how the new system will work. Examples of possible variations include the following:

- 1 TDR=1 dwelling unit or 1,500 square feet of commercial
- 1 TDR=1,800 square feet of residential or 1,500 square feet of commercial
- 1 TDR=1,800 square feet of commercial or residential

In spite of these and other unknowns, the following conclusions are reasonable:

- Commercial space is roughly 20% more valuable than residential space
- A townhouse dwelling unit is roughly equivalent in value to 1,500 square feet of commercial space

[6] For example, $350 is 23% more than $285, whereas $285 is 19% less than $350.

# Potential BLTs (Buildable TDRs)

- The 2007 TDR Tracking Report excludes BLTs from its analysis, yet suggests that if included, approximately 2,400 BLTs would be added to the sending supply . From this amount the following adjustments could be made -
  - Subtract approximately 200 BLT that have been severed through easement
  - Subtract approximately 200 BLTs on parcels with less than 50% suitable soil
  - Subtract approximately 400 BLTs on parcels with a low likelihood of sewer capability
- Resulting in approximately 1,600 potential BLTs

- An alternative estimation procedure analyzes farm level data -
  - There are approximately 577 farms in the Rural Density Transfer zone
  - At an average size of 130 acres, this yields 75,010 acres of farmland
  - Dividing total farmland by the number of buildable lots, at 25 acres per lot, yields 3000 lots
  - Assuming one dwelling unit retained per farm, the number of buildable lots becomes 2,423
  - Minus severed BLTs , BLTs on parcels with unsuitable soils, and those that won't perc
- Resulting in approximately 1,600 potential BLTs

APPENDIX B