



## ARLINGTON COUNTY, VIRGINIA

### ARLINGTON COUNTY PLANNING COMMISSION

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June 13, 2012

Arlington County Board  
2100 Clarendon Boulevard  
Suite 300  
Arlington, Virginia 22201

**SUBJECT: 4. GREEN BUILDING DENSITY POLICY FOR SITE PLAN PROJECTS**

**RECOMMENDATION: Adopt the changes to the Green Building Density Incentive Policy for Site Plan Projects.**

Dear County Board Members:

The Planning Commission heard this item at the June 6, 2012 recessed meeting of its June 4, 2012 regularly scheduled public hearing. Joan Kelsch, DES Environmental Management staff, provided an overview of proposed upgrades to the Green Building Density Incentive Policy for site plan projects, which has been in place for approximately 13 years since 1999. Ms. Kelsch provided an explanation of how the program has progressed over the years. She reviewed staff's written responses to questions and issues raised by the Planning Commission when this was reviewed as an Informational Item at its May 7, 2012 meeting, and by the Long Range Planning Committee on May 23, 2012 (see attachment). Also present were Jessica Abralind and Adam Segel-Moss, DES Environmental Management staff.

#### **Public Speakers**

There were no public speakers.

#### **Planning Commission Report**

Commissioner Malis reported that at the request of the Planning Commission this issue was the subject of a Long Range Planning Committee (LRPC) on May 23. The questions raised at the Commission meeting on May 7 were reviewed at the meeting. Issues discussed included 1) whether added bonus is counter productive in terms of carbon emissions, 2) whether a bonus necessary to achieve LEED objectives, 3) the difficulty of determining what it actually costs to achieve various LEED levels, and 4) a general question about the relative cost of achieving LEED compared to other

**P.C. #42**

bonus density. She noted that incentives may indeed still be required as LEED goals are not being achieved in Columbia Pike Form Based Code projects where there is no required standard.

Until there are standards for FBC projects staff should convey to FBC applicants that achieving a minimum LEED-certified building is a desirable goal of the County. Ms. Kelsch responded that she routinely meets with developers proposing special exception projects, including FBC projects, to encourage them to realize and participate in the benefits of the LEED program. She recently had this discussion with the developer for the Rosenthal FBC use permit project.

### **Planning Commission Discussion**

Commissioner Cole stated that implementing or constructing elements compliant with the LEED scorecard and actually receiving certification from the US Green Building Council are separate achievements. Many projects have achieved their LEED score, but not all go through the expense of attaining certification. He stated that this may be true of projects on Columbia Pike, as they are not getting bonuses for achieving LEED certification. Commissioner Cole asked if there was any evidence to suggest that reasonably responsible green buildings are being constructed on Columbia Pike without the bonus density. Ms. Kelsch responded that because staff does not track projects that do not receive LEED bonus density or do not have a site plan commitment to achieve a LEED score, staff is unaware of the components in the buildings. She believes many of these components are in the newer buildings because that is the way the industry is moving today.

Commissioner Malis stated that while achievement of a LEED score is not required, a LEED scorecard is required to be filed and based on this information, it appears FBC developers are not achieving certification levels. Ms. Kelsch responded that with the LEED scorecard submittal, staff can begin to have these discussions with developers about the benefits of constructing green.

Commissioner Klein asked for clarification on the chart provided by staff comparing applicants' baseline energy model estimates to the energy use estimated under their proposed LEED program. She questioned how the larger version of each building could use less energy. Ms. Abralind and Ms. Kelsch explained that the estimated energy use of the building without bonus density is based on a model reflecting compliance with building code but without any of the additional energy conservation methods required or measured under LEED. Commissioner Klein noted that few developers are building baseline buildings which meet only minimum building code requirements any more. She understands that we need something to compare the bigger LEED buildings to, but believes the analysis needs more clarification or it will be misinterpreted.

Commissioner Fallon stated that he believes the policy is moving in the right direction, but asked if developers will receive sufficient value in terms of bonus density and energy savings in exchange for the required up-front investment to achieve higher energy efficiency requirements. He was interested in knowing the development community's response to the new requirements and if they will pursue the bonus. Ms. Kelsch responded that she received positive reactions from the development community and believes they will pursue it. Commissioner Fallon asked if there will be a change in building design in response to the new requirements, such as fewer glass buildings. Ms. Kelsch responded that achieving higher energy efficiency levels may require the use of different or higher grade building materials. Commissioner Fallon asked if there will be adjustments to the

performance bonds to ensure that the required level of energy efficiency is provided. Ms. Kelsch responded that a typical bond is equivalent to \$40 per square foot. The bond would be comparable and dependent upon the building.

Commissioner Kumm congratulated staff and noted that it was exciting that energy consumption is being addressed proactively in Arlington County. She questioned the cumulative effect of all the potential density bonuses, and asked if they are calculated on the base density. Ms. Kelsch explained that each of the bonus densities is calculated on the base density. Commissioner Kumm clarified with staff that the various bonus densities granted get added up and may result in a larger building than that anticipated in the relevant sector plan. She also asked if the different bonus densities create competing priorities. Ms. Wray explained the bonus provisions of Section 36.H.5. of the Zoning Ordinance and how the green building density incentive policy differs. The bonuses permitted under the Zoning Ordinance have a combined maximum cap of 25% over the base density, including affordable housing, environmental amenities, community facilities, etc. However, the LEED bonus is calculated separately and not combined with the other bonuses and therefore is not competing against them. Commissioner Kumm asked whether any evaluation is done of the appropriateness of the resulting building mass after application of the various bonus densities, and whether it is staff or the Planning Commission that performs such a review. Ms. Kelsch responded that staff does examine this and assesses whether the bonus density sought is excessive. Staff listens to comments from the community and from the Planning Commission regarding the building mass, and determines what level of total bonus density will be supported by staff. Ms. Wray added that the Zoning Ordinance and sector plans provide maximum building heights by district as well as guidance on building form and design, and these are all taken into account.

Commissioner Savela asked whether staff had received letters on the proposed policy from the Environment and Energy Conservation Commission (E2C2) or other community or industry groups such as NVBIA and NAIOP. Ms. Kelsch responded that E2C2 submitted a letter stating it supports the concept of the updated policy, but that the final set of numbers had not been selected at the time of their meeting. Staff has not received any other letters. Commissioner Savela followed with several questions of clarification regarding the chart and table on pages 4 and 7 of the staff report and recommended changes and clarifications to the policy statement to be adopted by the County Board provided in Attachment 2.

Commissioner Cole inquired about the response to issues raised by the NVBIA and the NAIOP. Ms. Kelsch responded that their request was for significantly higher bonus density, which staff concluded was too great in exchange for the return on energy efficiency. Staff recently met with the development community to inform them of the status of the policy. Ms. Kelsch stated that developers would have to consider the policy carefully to decide if it is cost effective for them to use it, but she strongly believes that they will find that it will be beneficial to them. Commissioner Cole noted that the achievement of energy savings is based on a model and not on actual performance. He is very concerned about whether staff goes back to examine whether buildings have actually achieved the energy savings predicted by the model, and questioned what the accountability mechanism is. Ms. Kelsch responded that the revised policy addresses this by requiring applicants to submit ten years' worth of energy data to permit staff to assess the accuracy of the energy model.

She acknowledged that the predictive model is the weak point in the industry, and collecting and analyzing actual experience will help improve interpretation of the model. Commissioner Cole asked why the County does not use actual energy usage to determine whether the applicants must sacrifice their bond. Commissioner Cole disagreed and believes developers are very much aware of their energy pro forma, and that staff should track their actual performance.

Commissioner Cole raised the issue of the prioritization of bonus density opportunities and staff's role in encouraging one type of bonus over another on a project-by-project basis. He stated that it would be useful to recommend that the County assess the bonus density policies and that the County Board revisit how priorities are established among these policies. With regard to the arguments related to the value calculation on page 6 of the staff report, the report presents three reasons why the return on investment may not be justified if the bonus density is not granted. Commissioner Cole disagreed with the reasons provided. He stated that if the developer retains ownership of the building over the long term, they will eventually recover the cost of their investment through reduced energy use. If the building is sold upon completion, the investment in energy efficient systems incorporated in the building will be reflected in the price. Finally, he believes that if the building owner leases the space and passes on responsibility for utilities to the tenants, the value of the energy efficient systems are passed on through higher rent. While he is very supportive of encouraging developers to build green buildings and become more energy efficient, he does not want to do it in a way that results in giving density away. He suggested that developers seeking bonus density evaluate their options and may estimate, on a cost per square foot basis, the relative benefit of our different bonus density policies. The County needs to be precise in how the bonus density amounts are established and achieved, and whether the cost for gaining these bonuses is appropriate.

Commissioner Serie concurred with Commissioners Cole, Kumm, and Savela. He expressed concern that competition among the bonus density programs may result in developers deciding that it is less expensive to achieve bonus density through LEED than through other bonuses such as affordable housing. He would prefer that bonuses be achieved through provision of affordable housing. He is concerned that the green building bonus is creating a mechanism for developers to purchase very cheap bonus density, and believes developers know exactly what the cost of their LEED investments are. Commissioner Serie also expressed concern that there is no solid benchmark data from manufacturers and contractors.

Commissioner Savela asked about the federal GSA requirement for silver certification for leased space and how it is achieved in existing buildings. Ms. Kelsch responded that for GSA the silver certification is negotiable and projects are considered on a case-by-case basis, but it is the GSA's goal. The GSA looks for LEED and Energy Star certifications. Commissioner Savela asked if a bonus for office silver certification is still needed, given the importance of GSA in the Arlington market. Ms. Kelsch explained that the bonus proposed by staff is not just to achieve silver certification, but also to achieve energy efficient buildings. The bonus incentive is needed because without it energy efficient buildings will not be built.

Commissioner Savela acknowledged that the utility rates in Virginia make it very difficult to achieve the County's energy efficiency goals. Modeling the return on investment is a complicated process, and seeing a lengthy return for increased energy efficiency is a hard sell given the current utility rates. Staff may be able to demonstrate this by comparing Arlington's recent experience with what

developers did prior to this program and looking at other Virginia jurisdictions that do not encourage energy efficient buildings. Commissioner Savela stated that this policy advances an extremely important element in achieving the goals set forth in the Community Energy Plan. While transportation is probably the number one manner in which we will achieve these goals, improved building performance is probably second. If the size of buildings is increased through bonus density tied to achieving higher energy efficiency rates, it will ultimately improve the regional environment by substituting for less energy efficient space that would have been built here or elsewhere. The program is being made more costly to the development community through the new energy efficiency standards, so the County is continuously moving the bar. In the next 12-18 months there will be further adjustments as standards and expectations change. Commissioner Savela believes this is an excellent program yet noted that she continues to have questions about how all the bonuses are balanced and prioritized. She believes it would be a useful exercise for the Planning Commission to work with staff to investigate possible methods for quantifying the relative cost to developers of achieving the different bonuses, but such an undertaking should not impede continued improvements to this program.

### **Planning Commission Motion**

Commissioner Savela moved that the Planning Commission submit a letter to the County Board recommending that they adopt the changes to the Green Building Density Incentive Policy for Site Plan Projects. Commissioner Fallon seconded the motion.

Commissioner Fallon stated that the program is moving in the right direction to achieve higher levels of energy efficiency. As the program progresses, the County will make adjustments. The County does seek multiple goals through bonus density programs, including increased affordable housing, open space, and LEED-certified buildings. He hopes staff will continue to examine these programs and if evidence is found that one bonus program is cannibalizing the others, that staff seeks ways to incentivize the disadvantaged bonus density programs to get these programs in sync. He is confident that the program will achieve high results.

Commissioner Malis stated that it is important to acknowledge that this change in the LEED goals reflects the County's efforts to be forward thinking and progressive. The CEP has tremendously aggressive goals. While transportation contributes significantly to greenhouse gas emission, there is already a clear path to reducing these emissions. Buildings account for the largest share of greenhouse gas emissions but the steps needed to achieve the goals are less clear and the subject of the CEP implementation effort. This proposed policy change is a modest but important step.

Commissioner Ciotti shared the commendations of the other Commissioners. She hopes that the County gets to the point where its conservation efforts include methods and policies to make buildings much more water efficient. A lot of potable water gets used and filtered through the water treatment plant, and additional development may eventually max out the capacity of the water treatment plant. She hopes that the County will eventually include water usage as a very important way in which to make the community more sustainable.

Commissioner Harner applauded staff for incorporating energy efficiency in the LEED policy. He knows from his experience working in the industry that it is an uphill battle to get energy-efficient

buildings beyond the minimum standards in the building code due to the depreciation formula, the way that banks finance the buildings, the way that tenants occupy them and the way that developers flip them. Commissioner Harner acknowledged that we do not have the mindset for long term value in this country, and that is what energy efficiency requires. He appreciates staff responding to the earlier questions raised by the Planning Commission. This is an imperfect system and one that is difficult to advance. When we model energy efficiency, we are modeling it within a building form that is a given, yet the form of the building itself is one of the most important components in determining energy savings. In Europe, office buildings must have a window in each office, allowing natural ventilation and daylight. In the U.S., we have relatively deep core-to-glass ratios that do not allow natural light to filter very deeply into the building. Office buildings use a lot of energy for cooling due to the heat generated by the people and the lighting. We are still trying to overcome our energy inefficiency with mechanical systems rather than looking at the use of our natural environment in terms of lighting, shading, and access to natural ventilation.

Commissioner Harner also pointed to the notion of embodied energy as one that needs to be taken into account. Our choices to tear down relatively large buildings and rebuild rather than preserve and renovate affects our energy usage. Concrete has an enormous amount of embodied energy, so the payback period involved in tearing down a large concrete building and constructing a LEED platinum building that includes a 25% energy efficiency improvement may be 50 or 60 years once you tear down the original building and haul all of that concrete to a landfill. He understands that it is an enormously complicated calculation to take into account life cycle costs, embodied energy, sourcing materials, and other factors and believes we are not yet able to assume such a large undertaking in developing our energy efficiency policy. However, over time, the more we understand about the impact of building form on energy usage and the benefit of capturing embodied energy through historic preservation and reuse of buildings, we can incorporate this knowledge and improve our policies. He greatly appreciates staff's very clear discussion of the subject and wholeheartedly supports this effort.

Commissioner Cole stated that while the policy can be significantly improved, in some ways with little effort and in other ways with great effort, he supports it because it is the right thing to do.

The Planning Commission voted 9-1 to support the motion. Commissioners Ciotti, Cole, Fallon, Harner, Iacomini, Kumm, Malis, Savelle, and Serie supported the motion. Commissioner Klein opposed the motion.

Respectfully Submitted,  
Arlington County Planning Commission

A handwritten signature in black ink, appearing to read "Brian Harner". The signature is fluid and cursive, with a long horizontal stroke at the end.

Brian Harner  
Planning Commission Vice-Chair

## ATTACHMENT

### **Arlington Green Building Bonus Density Incentive Program Update Staff Responses to Planning Commission and LRPC Questions June 6, 2012**

#### **Market Transformation - the need to update the green building incentive program**

The green building bonus density program has been a success in Arlington. Owners, developers, architects, contractors, product suppliers, and engineers understand LEED and have changed their business models to incorporate environmentally preferred design and building materials in their work.

Although agreeing to earn high levels of LEED certification, most of these LEED projects do not include significant energy efficiency components (as defined by the LEED Energy Optimization credit (EA1.1)) above the minimum LEED prerequisite. The proposed changes to the green building bonus density incentive program are intended to incentivize exceptional energy efficiency while continuing the focus on holistically designed and constructed buildings. This policy update increases the rigor of the existing policy and is a step toward achieving the energy efficiency goals of the Community Energy Plan.

#### **How is energy efficiency measured?**

Energy efficiency for a building is projected using the nationally accepted ASHRAE 90.1 energy standard and is calculated using energy modeling software. The ASHRAE 90.1 standard is also used as the energy code in the Washington DC, Maryland, and Virginia, and throughout the US. Currently, the energy code in Virginia is ASHRAE 90.1-2007. The LEED 2009 prerequisite requires 10% more energy efficiency than ASHRAE 90.1-2007. We want to incentivize building to achieve more than that in order ensure the future energy efficiency of the building and to meet the CEP's long term energy efficiency goals.

The ASHRAE 90.1-2010 standard is the most recent version that incorporates significantly higher energy performance characteristics, but has not been adopted in Virginia yet. LEED 2012, set to be released later this year, is slated to include the requirement that all buildings must be designed and constructed to be 10% more energy efficient than the ASHRAE 90.1-2010 version. Staff expects to revise the Green Building Density Incentive program again when LEED 2012 is released.

A new addition to the policy is the reporting of energy data. Projects will report actual energy utility use using ENERGY STAR's Portfolio Manager each year for a period of 10 years. This data will be used to further evaluate the impact of the green building density incentive program.

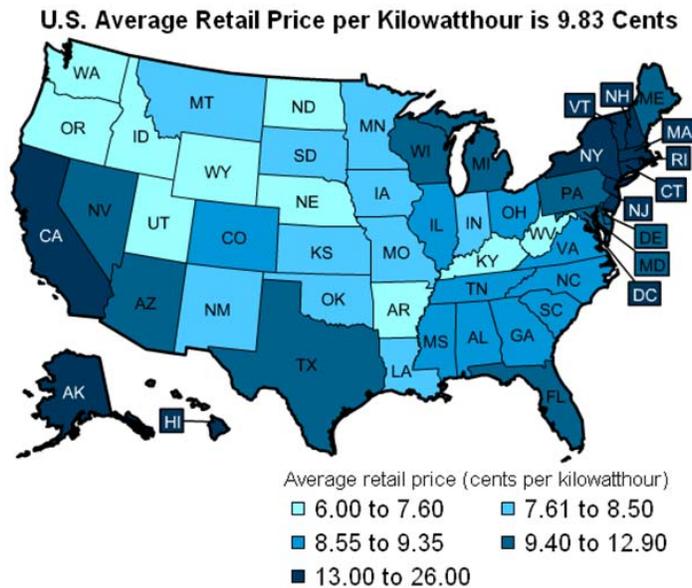
#### **What is the upfront cost and why aren't builders doing energy efficiency now?**

It is difficult to identify exactly how much additional upfront cost is required to make a building 10% more energy efficient than the baseline LEED standard (the baseline LEED standard is 10% above today's building code, ASHRAE 90.1-2007). Each building is different and energy efficiency opportunities vary depending on the type of building (office or residential), the building skin (all glass buildings offer far fewer opportunities for energy efficiency), building orientation, etc.

However, if energy efficiency were cost effective, developers would be building more energy efficient buildings now.

There are several reasons why energy efficiency isn't cost effective:

- Utility rates in Virginia are relatively low. This means that the payback period based on utility cost savings on an initial energy efficiency investment is too long to make the investment beneficial. For example, a report recently commissioned by staff shows that the return on investment on installing an energy efficient 4-pipe hydronic HVAC system is approximately 15 years. (The table below shows Virginia has below average electricity rates.)



Note: Data is displayed as 5 groups of 10 states and the District of Columbia.  
Source U.S. Energy Information Administration, Form EIA-861, "Annual Electric Power Industry Report."

- For developers who lease the building and whose tenants pay their own utility bills (office or residential), the energy savings benefit earned during the life of the building is enjoyed by the tenant, not the developer. Thus, the developer never sees the payback on the initial investment.
- Similarly, for developers who sell their buildings soon after completion, the energy savings benefit the new owner.

### What LEED credits won't be achieved if we ask for more energy efficiency credits?

Each project is different and developers will select LEED credits based on the project's characteristics and needs. However, based on our knowledge of projects and LEED, some of the credits that we think may not be pursued if energy efficiency credits are required include the following:

- EQ credit 8.2 - Views
- EQ credit 2 - Increased ventilation (note there is still a prerequisite for minimum ventilation)

- EQ credit 5 - Indoor Chemical and Pollutant Source control
- MR credit 4.2 - 20% recycled content of building materials (note it is still likely that projects will still achieve 10% recycled content for building materials)

However, it is also possible that the project will pursue the above listed credits in addition to the energy efficiency credits, resulting in a higher LEED score.

### **What are other jurisdictions doing?**

Maryland and Washington, D.C. both have LEED requirements for large buildings. In Virginia, we are not able to “require” LEED certification and thus have developed our incentive program. These programs do not include an energy efficiency requirement beyond the LEED prerequisite.

However, utility rates are higher in both jurisdictions so energy efficiency investments have a faster payback when they are included in a project.

Fairfax County addresses green building through their Comprehensive Plan policy. There are no LEED requirements, but the Plan does establish expectations for green building commitments for fairly broad sets of circumstances. Fairfax County’s Comprehensive Plan encourages the implementation of green building practices through the use of LEED or an equivalent green building rating system with third party verification. For specific areas of the County (such as Tysons and other dense development areas), the Plan outlines the following expectations, “Ensure that zoning proposals for nonresidential development ...and for multifamily residential development of four or more stories ...incorporate green building practices sufficient to attain certification through the LEED program or its equivalent, where applicable.” Nonresidential development in Tysons should go one step further and seek LEED Silver certification or equivalent as a minimum.

Alexandria City’s green building policy stipulates LEED Certified (or equivalent) for residential developments and LEED Silver (or equivalent) for non-residential developments that fall into the City’s development site plan process. Flexibility is explicitly part of the policy, allowing the Planning Director to waive the requirements of the policy for small or unique cases that may not be able to financially comply with the policy. Although 18 projects have committed to complying with the policy since its adoption in April 2009, no projects have yet been completed. Enforcement of the policy remains an issue.

### **GSA Requirements**

[The Energy Independence and Security Act of 2007](#) and [Executive Order 13514](#), *Federal Leadership in Environmental, Energy, and Economic Performance* led the U.S. General Services Administration to develop [Guiding Principles for high-performance green buildings and sustainable design](#). The GSA uses the LEED rating system to demonstrate compliance with the Guiding Principles.

As of June 2010, GSA has achieved the U.S. Green Building Council’s Leadership in Energy and Environmental Design (LEED) certification in 47 Federal buildings and leases. A recent review of 12 of these properties found that that they produced 33 percent lower carbon emissions, used 26 percent less energy, and used 3 percent less water than equivalent US commercial buildings.

(<http://www.gsa.gov/portal/content/184749>)

In October 2010, the U.S. General Services Administration upgraded the minimum requirement for all new federal building construction and substantial renovation projects to achieve LEED Gold certification. (<http://www.gsa.gov/portal/content/197325>)

### **What other green building rating systems exist?**

LEED certification is the only program currently used for the density incentive program in Arlington. Staff continually evaluates other green building rating systems to ensure that the green building certification system that Arlington's program uses remains at least as rigorous as other systems. Other existing programs include:

#### The Living Building Challenge

The Living Building Challenge is a new rating system developed in the Pacific Northwest. It is very rigorous green building rating system with mandatory requirements including net-zero energy use, net-zero water use and an urban agriculture component. More research is needed to evaluate the applicability and viability of the certification program in Arlington. This rating system is more rigorous than the LEED rating system. To date it has been used only for low-rise buildings.

#### Passive House

Passive House certification can be used for multifamily residential buildings and focuses on a very high performance building envelope to ensure energy efficiency. Additional research is needed to determine the extent that other holistic green building characteristics such as the toxicity of materials, water efficiency and site impacts are considered in this certification. This certification is more rigorous on energy efficiency than the LEED rating system. There are a couple single-family homes in the DC area that have used Passive House standards.

#### NAHB National Green Building Program

The National Green Building Program is a green building rating system for multifamily residential buildings. Basic certification under the program is less rigorous than LEED certification and so staff does not recommend using this program. More research is needed to determine if higher levels of certification, above the basic certification, would provide enough rigor to consider using the system.

#### Green Globes

Green Globes certification can be used for office or residential buildings. Basic certification under the program does not appear to be more rigorous than LEED certification. More research is needed to determine if higher levels of certification, above the basic certification, would provide enough rigor to consider using the system, and at what level that would be.

#### LEED 2012

LEED 2012 is currently under development and is expected to be released later this year. This update will include more stringent energy efficiency standards including a significant increase in the energy efficiency prerequisite needed for certification. The current draft of LEED 2012 indicates that buildings would have to be built to be 30% more energy efficient than buildings that are built to today's building code (ASHRAE 90.1-2007) in order to achieve baseline LEED certification.

**Does the LEED density incentive compete with the affordable housing incentive? Are the calculations based on the base level GFA or the GFA including the LEED bonus?**

According to Sec 36.H.5.a of Zoning Ordinance, the maximum bonus is 25%, which includes affordable housing and others; however, LEED bonus is not included in that calculation and is applied separately. An applicant can maximize LEED and can also maximize the affordable housing. The Virginia Square Towers and Rosslyn Commons Site Plans included bonuses for LEED and affordable housing. In both cases the LEED bonus was calculated on the site area allocated for residential use before applying the affordable housing bonus which was a separate calculation. For Virginia Square Towers, bonuses of .40 FAR for LEED and .25 FAR for affordable housing were approved. For Rosslyn Commons, bonuses of .15 FAR for LEED and 25% for affordable housing were approved.

ENVIRONMENT AND ENERGY CONSERVATION COMMISSION  
c/o Department of Environmental Services  
2100 Clarendon Blvd., Suite 705  
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June 1, 2012  
The Honorable Mary Hynes, Chair  
Arlington County Board  
2100 Clarendon Blvd., Suite 300  
Arlington, VA 22201

Subject: Arlington County Green Building Density Incentive Policy for Site Plans

Dear Madame Chair:

The purpose of this letter is to comment on potential revisions in the floor area ratio (FAR) bonus density award levels and requirements under the County's Green Building Density Incentive Policy for Site Plans. The Environment and Energy Conservation Commission (E2C2) supports Arlington County Department of Environmental Services' (DES) proposal to strengthen the award program and tie it more closely to the County's long-term goals for sustainability and greater energy efficiency.

Existing FAR bonus density awards for a project are linked to attainment of Leadership in Energy and Environmental Design (LEED) certification<sup>1</sup> and vary by level of certification (i.e. Certified, Silver, Gold, and Platinum). To be certified a project must satisfy all LEED rating system prerequisites and qualify for points in LEED environmental categories.<sup>2</sup> Existing FAR bonus density awards do not require the attainment of points toward certification in any particular LEED environmental category. E2C2 understands that only some past program participants pursued points in the LEED category titled "Energy and Atmosphere", and that, as a result, there was no guarantee that the award program would lead to a decrease in annual building energy use compared to a smaller building without the bonus density reward. E2C2 supports staff's efforts to ensure that every project leads to energy savings compared to those without the incentive.

E2C2 appreciates the complexity involved in revising award criteria to provide market incentives at the margin, promote a sustainable form of development in Arlington County, and make efficient use of limited County resources as part of a voluntary program. E2C2 generally supports the adoption of revised FAR bonus density award levels that vary according to LEED level of certification and the elimination of any bonus density for buildings below the silver LEED standard. These changes reflect the fact that the building industry is gradually becoming more energy efficient, and basic LEED certification no longer merits bonus density.

Further, E2C2 supports the following additional program requirements proposed by DES:

- E2C2 supports adoption of revised FAR bonus density award levels linked to a project's attainment of points in the Energy and Atmosphere environmental category. Establishing this link is important to Arlington County in that it would induce a reduction in overall energy use compared to plans without the FAR award, thereby

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<sup>1</sup> Level of certification under the New Construction and Major Renovations program

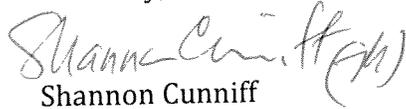
<sup>2</sup> The LEED environmental categories include Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, Innovation in Design, and Regional Priority.

contributing to "Goals for Arlington's Sustainable Energy Future" as described in the Arlington County Community Energy and Sustainability Task Force Report.

- E2C2 strongly supports the proposal to require that builders who receive green building bonus density report their energy utility data for ten years. Such data would facilitate the comparison of predicted energy usage based on engineering models to actual building performance and help fill a gap in our current knowledge base.
- E2C2 supports the concept of a small additional FAR bonus for post-occupancy achievement of an Energy Star label of certification under the LEED for Existing Buildings program.

E2C2 thanks the Board for the opportunity to comment on potential revisions in the County's Green Building Density Incentive Policy for Site Plans.

Sincerely,



Shannon Cunniff  
Chair, E2C2