

SUSTAINABILITY AUDIT

Zoning Montgomery – 4/21/2010

COMMENTS BY MONTGOMERY COUNTY'S ENERGY AND AIR QUALITY ADVISORY COMMITTEE

Montgomery County's Energy and Air Quality Advisory Committee ["the Committee"], an advisory committee to the Montgomery County, MD County Executive and County Council, is pleased to have the opportunity to submit comments on this Sustainability Audit. As a support group strongly oriented toward doing whatever we can to support a *responsible* and sustainable future for Montgomery County, the Committee appreciates the opportunity to provide feedback on this valuable overview of how the County can use its zoning code to advance sustainable development.

General Assessment

The Committee finds this document to be well written, well organized, and an excellent conceptual framework for supporting sustainable development. Comments below are organized sequentially as they pertain to the document. Some comments may essentially appear twice, once as they would affect the summary text and again at the place in the detailed table to which they pertain. Page numbers referenced in the specific comments are the page numbers as shown in the pdf sidebar.

Specific Comments

- *P. 2, paragraph 2*: "pointed officials" should be "appointed officials." [DF]
- *P. 2*: The overview page does not indicate who prepared the audit, nor its context (we understand that the zoning code is currently under review/modification, and that this audit is an effort to suggest changes that might steer the code toward sustainability.) Context of this type would be useful to readers who don't realize the larger efforts that are underway. [MC, DF]
- *End of P. 2*: The page number on which the Full Sustainability Audit text starts is missing from the text. Currently that page is 13, but maybe it has been omitted until all changes have been made to the front-end text and a final page can be determined. [DF]
- *P. 3, end of "Requiring Appropriate Density" section*: At the end of the last sentence, add "..... and allow for expedited permitting and/or increased densities as appropriate as incentives for sustainable initiatives such as district heating, renewable energy installations, car-free housing, and reflectivity improvements." [NF, BB, DF]

- *P. 3, “Walkability” section:* To increase walkability in communities, we encourage the county to reexamine incentives to developers that encourage large setbacks and small public plazas in front of buildings. While they can be charming, such setbacks interfere with the appearance of contiguous streetfront and successful retail. Perhaps a more efficient use of the developer requirement to provide such open space would be to pool amenity requirements into larger pocket parks or other more widely used public spaces. [NF]
- *P. 6:* In the detailed matrix is a suggestion that new parking facilities (mass parking areas) install infrastructure to eventually allow for the recharging of plug-in electric vehicles. If this initiative were to be included in the detailed matrix, would it be appropriate to add a summary comment about it on this page? [TS]
- *P. 7:* The initiatives regarding tree canopy can be very useful. Have the provisions here been coordinated in any way with the Forest Conservation Law (FCL) which has been in the process of being updated? Might the initiatives in this document inform or motivate changes in the FCL, or are there any FCL initiatives that might support or encourage initiatives in this effort? [MC]
- *P. 7:* The beginning of the last section should read “Reducing imperviousness and increasing reflectivity are central [BB]
- *P. 8:* The Committee appreciates and supports the idea of expanding greywater recycling. [NF]
- *P. 9:* The Committee appreciates the emphasis on district energy/geothermal systems in the Energy section. However, a few points could be clarified. First, geothermal energy as commonly used in residential/commercial applications is not renewable energy such as energy taken from hot springs or reservoirs. As a method of using moderate-temperature subterranean energy exchange (in a medium commonly from 55 to 60 degrees F) for space heating and cooling, geothermal heat pumps require electricity to operate in the same way as air source heat pumps, though the process is vastly more efficient. Also, geothermal energy applications could be permitted/encouraged not just in district applications (where a separate central facility is responsible for extracting energy for heating and cooling and distributing it to end user facilities such as homes or commercial buildings) but also in non-district aggregated applications, where a series of separate geothermal systems might be installed in a cluster of end user facilities. Geothermal, solar, and other renewable energy systems are other applications where permitting and zoning incentives might be put to good use. [DF, NF, ???]
- *P. 10, Livestock and gardens sections:* Loosening the restrictions on livestock and gardens seems like a good idea, though potential exists for some problems which might have to be addressed somewhere in other provisions [MC, DF]

- *P. 11:* In addition to developing lighting zones, which the Committee supports, attention should be paid to lighting orientation, so that lighting is consistently directed toward the ground, minimizing the amount of light projected into the sky. [NF]
- *P. 17, Private open spaces section:* under recommended changes, consider allowing developers to pool open-space requirements to create larger, more usable “pocket parks” or other public spaces rather than pieces of large setback, small public plaza spaces that interfere with streetfront appearance and successful retail. [NF]
- *P. 18, after LEED-Certified buildings:* Add a section called something like “Examination of energy efficiency and renewable energy options” to the matrix. In the recommended changes column, consider requiring developers to submit an analysis of energy efficiency and renewable energy options for a proposed project and providing developers with permitting/density incentives to encourage use of cost-effective or cost-competitive technologies. Also, developers should be required to anticipate the potential for future installation of energy efficiency or renewable energy technologies and provide an analysis of potential options for the project site, as part of the permitting or site review process. Reference for these suggestions is the Cape Cod Commission’s project review requirements. [NF/planners]
- *P. 20, tree canopy cover section under stormwater:* Should the recommended changes column be coordinated with provisions of the revised Forest Conservation Law? Are there any changes that could be suggested based on mutual needs? [MC]
- *P. 21, driveway width section:* Insert “impervious” before “driveways” in the first two entries under recommended changes, for emphasis. [DF]
- *Pp. 22-24:* The Committee supports the wide variety of recommended changes for parking requirements in this part of the audit. [NF]
- *P. 26, tree canopy sections:* Again, coordinate plans/recommended changes with the revision of the Forest Conservation Law as appropriate. [MC]
- *P. 27, roof surfaces section:* The recommended changes section does not suitably distinguish between low-slope and high-slope roofs. Low-slope roofs with SRI much larger than 29 are available. On the other hand, high-slope shingle roofs on homes would not be able to meet the standard reflectivity cutoff of 29. Anything above 26 would imply tiled roofs. Builders would have a real problem with such a requirement. Also, the notes column in this section should include a statement that the goals of roof reflectivity should be reviewed from

time to time to reassess what is actually practical to implement. A reference for this review and decision process would be the Cool Roof Rating System. [BB]

- *P. 28, in addition to the district generation facilities sections:* Could there be a separate section for non-district generation facilities (i.e., aggregated end user facilities that use generation or other renewable energy systems as a coordinated set of consumers rather than relying on a central generation facility? Such aggregated sets of users would be allowed everywhere, and might be provided incentives such as expedited permitting or increased density allowances in exchange for use of such systems. [DF]
- *P. 29, after buildings section:* Could an additional section, entitled “Parking Facilities” be added after the building section, to propose a recommended change requiring developers of new parking facilities to plan and install infrastructure as appropriate (conduit, necessary space for charging equipment, etc.) suitable for recharging plug-in electric vehicles in a certain fixed percentage of the vehicle spaces in the facility? There is no existing code on this, and applicable context and priority level are to be fixed as appropriate. [TS]