

**Committee members should bring their packets from the February 25 and April 1 worksessions. Most items in those packets are not duplicated here. Committee members may be asked to retain this packet for future reference.**

**M E M O R A N D U M**

TO: Transportation, Infrastructure, Energy & Environment Committee

FROM: *MF* Michael Faden, Senior Legislative Attorney  
Amanda Mihill, Legislative Attorney *AMihill*

SUBJECT: **Worksession 4:** Bill 35-12, Trees – Tree Canopy Conservation

Bill 35-12, Trees – Tree Canopy Conservation, sponsored by the Council President at the request of the County Executive, was introduced on November 27, 2012. A public hearing was held on January 17, 2013, along with Bill 41-12 (see selected testimony, ©29-54). Transportation, Infrastructure, Energy and Environment Committee worksessions were held on January 28, February 25, and April 1.

Bill 35-12 would broadly:

- establish a fee-based program to minimize and compensate for the loss and disturbance of tree canopy as a result of development;
- provide for County mitigation when tree canopy is lost or disturbed; and
- establish a fund that the County can spend for tree canopy conservation projects, including plantings of individual trees, groups of trees, or forests, on private and public property.

At the January worksession Executive branch staff presented an overview of Bill 35-12 and the issues it raises, and answered Committee members' questions. (See Executive staff presentation, ©63-96.) The Committee did not take any further action on this Bill at that worksession. At the February worksession, Executive branch staff updated the Committee on discussions they have had with various stakeholders on key issues. At the April worksession Committee members requested more data from Executive staff on tree preservation programs in other comparable jurisdictions.

*Circle numbers from 29-161 may be cited in this memo but are not included in it. They are included in the February 25 and April 1 Committee packets, which Committee members should bring to this worksession. This was done to save a few trees.*

## Committee Recommendations To-Date

At its April 1 worksession, the Committee made the following recommendations:

- exempt the Parks Department from Bill 35-12;
- do not exclude quarry operations from Bill 35-12 (the Bill would already exempt non-coal surface mining conducted in accordance with applicable state law);
- verify that agricultural activity is not subject to Bill 35-12 (Executive staff continue to affirm that agricultural activities are not subject to the bill because they do not normally require a sediment control permit); and
- grandfather existing projects (see Executive staff language below).

## Remaining Issues for Committee Discussion

*1) How do other jurisdictions handle tree canopy protections?* At previous worksessions, Committee members asked Executive staff to research other jurisdictions that have tree canopy laws and compare them to Bill 35-12. The initial response from DEP staff before the April 1 worksession is on ©146-158. As DEP staff noted when it transmitted this material:

This was not any easy task due to the wide variability and complexity of laws in other jurisdictions (imagine someone trying to interpret our Forest Conservation Law, which still sometimes confuses County staff). However, we hope this gives an indication that (1) other jurisdictions have enacted tree protection programs and (2) the approach to doing this varies greatly.

DEP staff also transmitted a USDA Forest Service Study on urban tree canopy retention (see ©136-145). DEP staff noted that:

This study analyzed the recent change in the urban tree canopy in 20 jurisdictions across the country. Clearly, some of the results of this study would not be applicable to more rural areas of the County, but I think it is applicable in the more urbanized areas (which are increasing). The conclusion notes “Despite various and likely limited tree planting and protection campaigns, tree cover tends to be on the decline in U.S. cities while impervious cover is on the increase. While these individual campaigns are helping to increase or reduce the loss of urban tree cover, more widespread, comprehensive and integrated programs that focus on sustaining overall tree canopy may be needed to help reverse the trend of declining tree cover in cities.”

More recently, DEP transmitted information on several comparable jurisdictions (see ©162-181), showing that fees charged elsewhere would substantially exceed those proposed in this Bill.

*2) Is the fee-based approach outlined in Bill 35-12 a good way to protect and manage the County’s tree canopy?* Many organizations and speakers questioned different aspects of the approach in Bill 35-12. For instance, Renewing Montgomery argued that if the County’s goal is

to retain tree canopy, the law should apply to all property owners, regardless of whether they need a sediment control permit.

Committee members may wish to discuss the following questions about the Bill's scope and approach with Executive staff and other stakeholders:

- Proposed §55-9(a) (see ©12, lines 279-283) provides that the Bill's objective is to retain existing trees and that "every reasonable effort should be made to minimize the cutting or clearing of trees and other woody plants..." Is this language intended to be a general policy goal, or instead to function as a substantive regulatory standard? We believe this language, if not entirely hortatory, is at best a broad policy goal.
- Why does Bill 35-12 apply only to properties that must obtain a sediment control permit? Why not apply the Bill to all properties? Or trigger the restrictions after a particular amount of tree canopy is disturbed?
- As essentially a fee-based approach, Bill 35-12 would not require replacing any tree canopy where it is removed (i.e., the bill does not require on-site replacement when possible). Should it?
- How would this Bill overlap the forest conservation law? Will most properties that are subject to the forest conservation law also be subject to the tree canopy law? Should properties subject to the forest conservation law be exempt from the tree canopy law? The Maryland National Capital Building Industry Association (BIA) and attorney Timothy Dugan argued that properties that are subject to the forest conservation law should not be subject to a tree canopy law. Effectively they are not; under ©12-13, lines 291-294, any disturbance in a tree canopy that is identified as part of a forest in a natural resources inventory/forest stand delineation and subject to a forest conservation plan would not have to pay mitigation fees.
- Much of the Bill's content seems to assume a more direct regulatory approach than a simple fee requirement, and in Council staff's view would not be necessary if the only action needed to comply with this Bill will be to submit limits of disturbance information and pay the fee that is calculated accordingly. For example, on ©13-17, lines 296-342 and 346-387 appear superfluous.

**3) *Should Bill 35-12 set canopy goals?*** Many organizations, including Conservation Montgomery and West Montgomery County Citizens Association, urged that Bill 35-12 be amended to include specific tree canopy goals. Some individuals suggested establishing a no-net loss tree canopy goal; other organizations suggested setting a countywide goal of 55%, with a minimum goal of 40% in all areas evaluated in a county tree canopy assessment. The Bill does neither.

**4) *Should the Parks Department be exempt?*** The County Planning Board and many environmental organizations expressed concern that Bill 35-12 would cover the Parks Department in its requirements. As Board Chair Carrier noted in her letter on ©31-32, many park capital projects involve work under tree canopy and the Department strives to avoid, minimize, and mitigate the negative effects of park projects on native tree canopy. At the February 25 worksession, Executive staff noted that although they were willing to amend Bill 35-12 to assure that the fee the Parks Department pays would be directed back to the Parks

system, they concluded that the Parks Department should not be exempt entirely from the bill. **Committee recommendation: exempt the County Parks Department from this Bill.**

**5) What other exemptions (if any) should be allowed?** Several organizations or individuals requested exemptions from the fee requirement:

- As drafted, Bill 35-12 would exempt any tree nursery activity performed with an approved Soil Conservation and Water Quality Plan (see ©6, line 121-123). The Soil Conservation District and the Agricultural Advisory Committee would broaden this exemption to include any agricultural or conservation activity performed with an approved Soil Conservation and Water Quality Plan (see ©112-115). Because agricultural activities are normally not required to apply for a sediment control permit, we concur with Executive branch staff that this exemption would be unnecessary.
- Bill 35-12 would exempt any non-coal surface mining conducted in accordance with applicable state law (see ©7, lines 149-150). Tri-State Stone and Building Supply requested the Council to amend the law to specifically exclude quarry operations (see letter from Linowes and Blocher, ©119-121). We see no reason to do so; a quarry normally would have little tree cover, but if it does the requirements should apply.

**Committee recommendation: do not adopt either amendment.**

- Pepco (see Pasternak email, ©183) asked for an amendment, similar to language in the redraft of Bill 41-12, to clarify that utility vegetation management activities are not subject to this Bill. While Council staff concurs with Executive branch staff that those activities likely would not be covered by this Bill, we agree with Pepco that inserting language similar to that in lines 100-106 of draft 16 of Bill 41-12 on line 136 of this Bill would avoid negative implications and make that result certain.

**6) What is the appropriate mitigation fee level?** Bill 35-12 would require the payment of a mitigation fee set by Method 3 regulation. The fee would not apply to the first 5% of the tree canopy disturbed and, as already mentioned, would not apply to canopy that is subject to forest conservation law restrictions. Some environmental groups, including Conservation Montgomery, urged DEP to set a fee that is high enough to provide incentives to save trees or cover the cost of replacement trees. The Planning Board was concerned that Bill 35-12 does not set a specific mitigation rate.

When Committee members pressed Executive staff for proposed fee levels, DEP staff submitted a fee scale based on the forest conservation law's fee-in-lieu payment (\$1.05/square foot at 40,000 square feet) (see ©128-135). To show how the fee is calculated on sample sites, DEP submitted a Powerpoint presentation (see ©184-198).

Committee members expressed an intent to insert whatever fee level that is approved into the law, at least as the initial fee, possibly subject to revision through a regulation that the Council would have to approve (not a Method 3 regulation, as the Bill proposed). In the worksessions so far, Committee members have not discussed in detail what fee levels are appropriate.

Bill 35-12 would set a fee based on the amount of tree canopy within the limits of disturbance, regardless of how much if any canopy is actually removed. Should the fee structure instead be measured by how much canopy would be removed?

**7) What mitigation credits should be allowed?** Some environmental organizations and building community representatives seem to agree in theory regarding credits for on-site planting. Conservation Montgomery recommended a 25% canopy fee credit for trees replanted on site (the higher the fee, the higher the level of credit that should be allowed) and a tree protection credit for unusual efforts to save trees on site. Larry Cafritz, a custom builder, said that there should be an appreciable credit for homeowners to replant onsite. The Planning Board argued for a credit for protecting individual trees and their critical root zone and for replanting on site. Additionally, BIA expressed concerns that Bill 35-12 does not include a credit for stormwater management structures that builders are now required to install on lots to capture stormwater, which can require some trees to be removed.

Just before the April worksession, DEP staff submitted an outline of a potential credit program for tree protection and tree planting (see ©159-161). Much of the detail in this proposal could be contained in the implementing regulation, but the basic thrust and the minimum or maximum credits would need to be inserted into the Bill.

**Renewing Montgomery proposal** As an alternative to the fee and credit structure that DEP advocates, a group of small builders, Renewing Montgomery, has proposed an option for smaller lots (those less than 20,00 square feet) that in their view would be less expensive, fairer, less subject to administrative discretion, and result in more trees being replanted onsite. For their proposal, see ©175-181. BIA endorsed their approach (see BIA letter, ©182.)

Essentially, Renewing Montgomery would allow, at the owner/builder's option, the applicant to commit to plant a certain number of trees onsite, regardless of whether any trees were previously there or were removed. The applicant would have the option to pay a set in-lieu fee, based on the cost to plant a replacement tree, somewhat lower than DEP proposed, which (as with the fee under this Bill) would be used to plant trees somewhere in the County. Renewing Montgomery's formula for trees on-site and in-lieu fees is shown on ©177, and site-specific examples are shown on ©178-181.

Variations on this proposal could include:

- requiring a certain minimum number of shade trees (say half of those proposed) to be planted onsite in all cases unless in its plan review the Department of Permitting Services (DPS) finds that exceptional circumstances make planting the required trees onsite infeasible; and/or
- limiting the use of this option to lots where application of state and County stormwater management requirements results in the loss of all or most trees, as Renewing Montgomery argues is often the case.

If planting trees onsite is allowed as an alternative to a mitigation fee, in Council staff's view a builder's warranty of 1 or 2 years should be required for each tree planted.

**8) Should the uses of the Tree Conservation Fund be restricted?** Environmental and builder representatives raised concerns about the Tree Conservation Fund. Conservation Montgomery and Ashton Manor Environmental urged that the Bill be amended to assure that the fund is not used for salaries and other administrative expenses. In Council staff's view, this can

be regulated through the operating budget process; if too much of the Fund turns out to be used for less important purposes, the annual operating budget resolution can include appropriate restrictions.

**9) Which if any projects should be grandfathered?** Both attorney Timothy Dugan and Larry Cafritz requested that Bill 35-12 grandfather existing projects. The Bill does not specifically provide when it would take effect or how it would apply to projects that filed applications for sediment control permits or forest conservation law approvals before the Bill takes effect.

Executive branch staff proposed a relatively narrow transition clause:

**Sec. 2. Transition.** This Act does not apply to any lot where a sediment control permit or final forest conservation plan was approved before March 1, 2014, unless the property owner later submits an application to the Planning Department to amend the approved final forest conservation plan.

Building industry representatives prefer a transition clause which exempts any lot where an application for a building permit, sediment control permit, or forest conservation plan was submitted before that date.

<b>This packet contains:</b>	<u>Circle #</u>
Bill 35-12	1
Legislative Request Report	19
Memo from County Executive	20
Fiscal and Economic Impact Statement	22
<b><i>In February 25 Committee packet</i></b>	
<i>Selected testimony and correspondence</i>	29
<i>Executive staff presentation</i>	63
<i>County Attorney opinion</i>	97
<b><i>In April 1 Committee packet</i></b>	
<i>More selected testimony and correspondence</i>	102
<i>Revised Executive staff presentation with proposed fee levels</i>	122
<i>USDA Forest Service Study on urban tree canopy</i>	136
<i>Summaries of selected tree laws in other jurisdictions</i>	146
<i>DEP outline of potential credit program</i>	159
<b>In this packet</b>	
DEP comparisons with other jurisdictions	162
Renewing Montgomery proposal	175
BIA email endorsing Renewing Montgomery proposal	182
Pepco email	183
DEP Powerpoint presentation on fee calculation process	184

Bill No. 35-12  
Concerning: Trees - Tree Canopy Conservation  
Revised: 10/25/2012 Draft No. 1  
Introduced: November 27, 2012  
Expires: May 27, 2014  
Enacted: \_\_\_\_\_  
Executive: \_\_\_\_\_  
Effective: \_\_\_\_\_  
Sunset Date: None  
Ch. \_\_\_\_\_, Laws of Mont. Co. \_\_\_\_\_

## COUNTY COUNCIL FOR MONTGOMERY COUNTY, MARYLAND

By: Council President at the Request of the County Executive

**AN ACT** to:

- (1) save, maintain, and establish tree canopy for the benefit of County residents and future generations;
- (2) maximize tree canopy retention and establishment;
- (3) establish procedures, standards, and requirements to minimize the loss and disturbance of tree canopy as a result of development;
- (4) provide for mitigation when tree canopy is lost or disturbed;
- (5) establish a fund for tree canopy conservation projects, including plantings of individual trees, groups of trees, or forests, on private and public property; and
- (6) generally revise County law regarding tree canopy conservation.

By adding

Montgomery County Code

Chapter 55, Tree Canopy Conservation

Sections 55-1, 55-2, 55-3, 55-4, 55-5, 55-6, 55-7, 55-8, 55-9, 55-10, 55-11, 55-12, 55-13 and 55-14.

<b>Boldface</b>	<i>Heading or defined term.</i>
<u>Underlining</u>	<i>Added to existing law by original bill.</i>
[Single boldface brackets]	<i>Deleted from existing law by original bill.</i>
<u>Double underlining</u>	<i>Added by amendment.</i>
[[Double boldface brackets]]	<i>Deleted from existing law or the bill by amendment.</i>
* * *	<i>Existing law unaffected by bill.</i>

**The County Council for Montgomery County, Maryland approves the following Act:**

1           **Sec. 1. Chapter 55 is added as follows:**

2                           **Article 1. Purpose and General Provisions.**

3       **55-1. Short title.**

4           This Chapter may be cited as the Montgomery County Tree Canopy  
5 Conservation Law.

6       **55-2. Findings and purpose.**

7           (a) Findings. The County Council finds that trees and tree canopy  
8 constitute important natural resources. Trees filter groundwater,  
9 reduce surface runoff, help alleviate flooding, and supply necessary  
10 habitat for wildlife. They cleanse the air, offset the heat island effects  
11 of urban development, and reduce energy needs. They improve the  
12 quality of life in communities by providing for recreation,  
13 compatibility between different land uses, and aesthetic appeal. The  
14 Council finds that tree and tree canopy loss as a result of development  
15 and other land disturbing activities is a serious problem in the County.

16          (b) Purpose. The purposes of this Chapter are to:

- 17           (1) save, maintain, and establish tree canopy for the benefit of  
18 County residents and future generations;  
19           (2) maximize tree canopy retention and establishment;  
20           (3) establish procedures, standards, and requirements to minimize  
21 the loss and disturbance of tree canopy as a result of  
22 development;  
23           (4) provide for mitigation when tree canopy is lost or disturbed;  
24 and

25           (5) establish a fund for tree canopy conservation projects, including  
26                   plantings of individual trees, groups of trees, or forests, on  
27                   private and public property.

28 **55-3. Definitions.**

29           In this Chapter, the following terms have the meanings indicated:

30           **Critical Root Zone** means the minimum area beneath a tree. The critical  
31           root zone is typically represented by a concentric circle centering on the tree  
32           trunk with a radius equal in feet to 1.5 times the number of inches of the  
33           trunk diameter.

34           **Development plan** means a plan or an amendment to a plan approved under  
35           Division 59-D-1 of Chapter 59.

36           **Director of Environmental Protection** means the Director of the  
37           Department of Environmental Protection or the Director's designee.

38           **Director of Permitting Services** means the Director of the Department of  
39           Permitting Services or the Director's designee.

40           **Forest conservation plan** means a plan approved under Chapter 22A.

41           **Forest stand delineation** means the collection and presentation of data on  
42           the existing vegetation on a site proposed for development or land disturbing  
43           activities.

44           **Land disturbing activity** means any earth movement or land change which  
45           may result in soil erosion from water or wind or the movement of sediment  
46           into County waters or onto County lands, including tilling, clearing, grading,  
47           excavating, stripping, stockpiling, filling, and related activities, and covering  
48           land with an impermeable material.

49           **Limits of disturbance** means a clearly designated area in which land  
50           disturbance is planned to occur.

51 Limits of tree canopy disturbance means all areas within the limits of  
 52 disturbance where tree canopy or forest exists.

53 Lot means a tract of land, the boundaries of which have been established by  
 54 subdivision of a larger parcel, and which will not be the subject of further  
 55 subdivision, as defined by Section 50-1, without an approved forest stand  
 56 delineation and forest conservation plan.

57 Mandatory referral means the required review by the Planning Board of  
 58 projects or activities to be undertaken by government agencies or private and  
 59 public utilities under Section 20-302 of the Land Use Article of the  
 60 Maryland Code.

61 Natural resources inventory means a collection and presentation of data on  
 62 the existing natural and environmental information on a site and the  
 63 surrounding area proposed for development and land disturbing activities.

64 Person means:

65 (a) To the extent allowed by law, any agency or instrument of the federal  
 66 government, the state, any county, municipality, or other political  
 67 subdivision of the state, or any of their units;

68 (b) An individual, receiver, trustee, guardian, executor, administrator,  
 69 fiduciary, or representative of any kind;

70 (c) Any partnership, firm, common ownership community or other  
 71 homeowners' association, public or private corporation, or any of their  
 72 affiliates or subsidiaries; or

73 (d) Any other entity.

74 Planning Board means the Montgomery County Planning Board of the  
 75 Maryland-National Capital Park and Planning Commission, or the Planning  
 76 Board's designee.

77 **Planning Director** means the Director of the Montgomery County Planning  
78 Department or the Director's designee.

79 **Preliminary plan of subdivision** means a plan for a proposed subdivision  
80 or resubdivision prepared and submitted for approval by the Planning Board  
81 under Chapter 50 before preparation of a subdivision plat.

82 **Project plan** means a plan or an amendment to a plan approved under  
83 Division 59-D-2 of Chapter 59.

84 **Public utility** means any water company, sewage disposal company, electric  
85 company, gas company, telephone company, or cable service provider.

86 **Qualified professional** means a licensed forester, licensed landscape  
87 architect, or other qualified professional who meets all of the requirements  
88 under Section 08.19.06.01A of the Code of Maryland Regulations or any  
89 successor regulation.

90 **Retention** means the deliberate holding and protecting of existing trees and  
91 forests on the site.

92 **Sediment control permit** means a permit required to be obtained for certain  
93 land disturbing activities under Chapter 19.

94 **Site** means any tract, lot, or parcel of land, or combination of tracts, lots, or  
95 parcels of land, under a single ownership, or contiguous and under diverse  
96 ownership, where development is performed as part of a unit, subdivision, or  
97 project.

98 **Site plan** means a plan or an amendment to a plan approved under Division  
99 59-D-3 of Chapter 59.

100 **Special exception** means a use approved under Article 59-G of Chapter 59.

101 **Subwatershed** means the total drainage area contributing runoff to a single  
102 point, and generally refers to the 8-digit hydrologic unit codes.

103 **Technical Manual** means a detailed guidance document adopted under  
 104 Section 55-13 and used to administer this Chapter.

105 **Tree** means a large, woody plant having one or several self-supporting  
 106 stems or trunks and numerous branches that can grow to a height of at least  
 107 20 feet at maturity. **Tree** includes the critical root zone.

108 **Tree canopy** means the area of one or many crowns of the trees on a site  
 109 including trees in forested areas.

110 **Tree Canopy Conservation Fund** means a special fund maintained by the  
 111 County to be used as specified in Section 55-14.

112 **Tree canopy cover** means the combined area of the crowns of all trees on the  
 113 site, including trees in forested areas.

114 **Tree canopy cover layer** means the Geographic Information System (GIS)  
 115 layer, or shape file, that contains polygons outlining the aerial extent of tree  
 116 canopy in the County or any portion of the County.

117 **55-4. Applicability.**

118 Except as otherwise provided under Section 55-5, this Chapter applies to any  
 119 person required by law to obtain a sediment control permit.

120 **55-5. Exemptions.**

121 This Chapter does not apply to:

122 (a) any tree nursery activity performed with an approved Soil Conservation  
 123 and Water Quality Plan as defined in Section 19-48;

124 (b) any commercial logging or timber harvesting operation with an  
 125 approved exemption from the requirements under Article II of Chapter  
 126 22A;

127 (c) cutting or clearing trees in a public utility right-of-way for the  
 128 construction or modification of electric generation facilities approved  
 129 under the Maryland Code Public Utilities Article if:



- 157           (1) Any person required by law to obtain a sediment control permit  
158           for land disturbing activity that is not subject to Chapter 22A  
159           must submit a limits of tree canopy disturbance concurrently with  
160           the sediment control permit application to the Director of  
161           Permitting Services under Section 55-7.
- 162           (2) Any person engaging in activity that is subject to Chapter 22A  
163           must submit a limits of tree canopy disturbance concurrently with  
164           any other plan required under Chapter 22A to the Planning  
165           Director under Section 55-8.
- 166           (b) *Timing of submissions.* The person must submit the limits of tree  
167           canopy disturbance for review in conjunction with the review process  
168           for a sediment control permit, forest conservation plan, development  
169           plan, project plan, preliminary plan of subdivision, site plan, special  
170           exception, or mandatory referral. If a natural resources inventory/forest  
171           stand delineation is required, the person must include the aerial extent of  
172           the tree canopy with the natural resources inventory/forest stand  
173           delineation as specified in Section 22A-10.
- 174           (c) *Incomplete submissions.* The Director of Permitting Services or the  
175           Planning Director must not approve an incomplete submission.
- 176           (d) *Review of submissions.* Each submission required under this Chapter  
177           must be reviewed concurrently with the review of any submission  
178           required under Article I of Chapter 19 or Chapter 22A.
- 179           (e) *Coordination of review.* The Director of Permitting Services and the  
180           Planning Director may coordinate the review of any information  
181           submitted under subsection (a) with other agencies as appropriate. The  
182           reviews may be performed concurrently, and in accordance with, any  
183           review coordination required under Chapter 19 or Chapter 22A.

- 184 (f) Time frame of validity. An approved limits of tree canopy disturbance  
 185 submission remains valid for:
- 186 (1) not more than 2 years unless the Planning Director has approved  
 187 either a final forest conservation plan or preliminary forest  
 188 conservation plan that includes the limits of tree canopy  
 189 disturbance;
- 190 (2) not more than 2 years unless a sediment control permit has been  
 191 issued by the Director of Permitting Services and remains valid;  
 192 or
- 193 (3) 5 years if the accuracy of the limits of tree canopy disturbance  
 194 has been verified by a qualified professional.
- 195 (g) Issuance of sediment control permit. The Director of Permitting  
 196 Services must not issue a sediment control permit to a person that is  
 197 required to comply with this Article until:
- 198 (1) the Planning Board or Planning Director, as appropriate, or the  
 199 Director of Permitting Services has approved an applicant's  
 200 limits of disturbance; and
- 201 (2) the applicant pays any fee required under this Article.

202 **55-7. Tree Canopy – Submissions to the Director of Permitting Services.**

- 203 (a) General. The limits of tree canopy disturbance information submitted to  
 204 the Director of Permitting Services must document the extent of the  
 205 existing area of tree canopy and the total area of tree canopy to be  
 206 disturbed by the proposed activity.
- 207 (b) Incorporation of limits of tree canopy disturbance. The limits of tree  
 208 canopy disturbance information for the subject property must be  
 209 incorporated in a sediment control permit or the site plan submitted for a  
 210 building permit.

211 (c) The limits of tree canopy disturbance. The limits of tree canopy  
 212 disturbance information for the subject site must include:

- 213 (1) a map delineating:
  - 214 (A) the property boundaries;
  - 215 (B) the proposed limits of disturbance including any off-site  
 216 areas;
  - 217 (C) the aerial extent of existing tree canopy cover on the  
 218 subject site, up to 45 feet beyond the proposed limits of  
 219 disturbance;
  - 220 (D) the intersection of aerial extent of existing tree canopy  
 221 cover and the limits of disturbance; and
  - 222 (E) any additional information specified by regulation; and

- 223 (2) a table summarizing the square footage of:
  - 224 (A) the property;
  - 225 (B) the limits of disturbance of the proposed activity;
  - 226 (C) the aerial extent of existing tree canopy cover;
  - 227 (D) the limits of tree canopy disturbance; and
  - 228 (E) any additional information specified by regulation.

229 (d) Modification to limits of tree canopy disturbance. The Director of  
 230 Permitting Services may approve a modification to an approved limits  
 231 of tree canopy disturbance if:

- 232 (1) the modification is consistent with this Chapter, field inspections  
 233 or other evaluations reveal minor inadequacies of the plan, and  
 234 modifying the plan to remedy the inadequacies will not increase  
 235 the amount of tree canopy removed as shown on the final  
 236 approved plan; or
- 237 (2) the action is otherwise required in an emergency.

238 (e) Qualification of preparer. If a tree canopy cover layer developed by the  
 239 County is available and is used without alteration, a professional  
 240 engineer, land surveyor, architect, or other person qualified to prepare  
 241 erosion and sediment control plans under Chapter 19 is also qualified to  
 242 prepare the limits of tree canopy disturbance information under this  
 243 Section. Otherwise, the limits of tree canopy disturbance information  
 244 must be prepared by a qualified professional as defined in Section  
 245 08.19.06.01 of the Code of Maryland Regulations or any successor  
 246 regulation.

247 **55-8. Tree Canopy – Submission to the Planning Director.**

248 (a) General. The limits of tree canopy disturbance information submitted  
 249 to the Planning Director must document the extent of existing tree  
 250 canopy and the total area of tree canopy to be disturbed by the proposed  
 251 activity. The Planning Director may use the information to identify the  
 252 most suitable and practical areas for tree conservation and mitigation.

253 (b) Limits of tree canopy disturbance. A person that is subject to this  
 254 Section must submit the same limits of tree canopy disturbance  
 255 information as required under Section 55-7.

256 (c) Incorporation of the limits of tree canopy, the natural resources  
 257 inventory/forest stand delineation, and forest conservation plan. If an  
 258 applicant is required to submit a natural resources inventory/forest stand  
 259 delineation, the extent of tree canopy must be incorporated into that  
 260 submission for the same area included in the natural resources  
 261 inventory/forest stand delineation. If an applicant is required to submit  
 262 a forest conservation plan, both the extent of tree canopy and the limits  
 263 of tree canopy disturbance must be incorporated into that submission for  
 264 the same area included in the forest conservation plan.

265 (d) Modification to limits of tree canopy disturbance. The Planning  
 266 Director may approve a modification to an approved limits of tree  
 267 canopy disturbance that is consistent with this Chapter if:

268 (1) field inspection or other evaluation reveals minor inadequacies of  
 269 the plan, and modifying the plan to remedy those inadequacies  
 270 will not increase the amount of tree canopy removed as shown on  
 271 the final approved plan; or

272 (2) the action is required because of an emergency.

273 (e) Submission for special exception. If a special exception application is  
 274 subject to this Chapter, the applicant must submit to the Planning Board  
 275 any information necessary to satisfy the requirements of this Chapter  
 276 before the Board of Appeals considers the application for the special  
 277 exception.

278 **55-9. Tree Canopy – Fee to Mitigate Disturbance.**

279 (a) Objectives. The primary objective of this Section is the retention of  
 280 existing trees. Every reasonable effort should be made to minimize the  
 281 cutting or clearing of trees and other woody plants during the  
 282 development of a subdivision plan, grading and sediment control  
 283 activities, and implementation of the forest conservation plan.

284 (b) Fees paid for mitigation. Mitigation required to compensate for the loss  
 285 of, or disturbance to, tree canopy must take the form of fees set by  
 286 regulation under Method 3, which the applicant pays to the Tree  
 287 Canopy Conservation Fund. Mitigation fees are based on the square  
 288 footage of tree canopy disturbed and, therefore, increase as the amount  
 289 of tree canopy disturbance increases. To provide credit for on-site  
 290 landscaping, mitigation fees must not be applied to the first 5 percent of  
 291 the area of tree canopy disturbed. Canopy identified as part of any

292 forest delineated in an approved natural resources inventory/forest stand  
 293 delineation and subject to a forest conservation plan is not subject to  
 294 mitigation fees under this Chapter.

295 **Article 3. Enforcement and Appeals.**

296 **55-10. Inspections and notification.**

297 (a) Permission to gain access. The Director of Permitting Services or the  
 298 Planning Director may enter any property subject to this Chapter to  
 299 inspect, review, and enforce.

300 (b) Plan to be on site; field markings. A copy of the approved limits of  
 301 tree canopy disturbance must be available on the site for inspection by  
 302 the Director of Permitting Services or the Planning Director. Field  
 303 markings must exist on site before and during installation of all tree  
 304 protection measures, sediment and erosion control measures,  
 305 construction, or other land disturbing activities.

306 (c) Inspections.

307 (1) The Director of Permitting Services must conduct field  
 308 inspections concurrently with inspections required for a  
 309 sediment control permit under Article I of Chapter 19 for any  
 310 activity subject to Section 55-7.

311 (2) The Planning Director must conduct field inspections  
 312 concurrently with inspections required for a forest conservation  
 313 plan for any activity subject to Section 55-8.

314 (3) The Director of Permitting Services or the Planning Director  
 315 may authorize additional inspections or meetings as necessary  
 316 to administer this Chapter.

317 (d) Timing of inspections. The inspections required under this Section  
 318 must occur:

- 319           (1) after the limits of disturbance have been staked and flagged, but  
 320           before any clearing or grading begins;
- 321           (2) after necessary stress reduction measures for trees and roots  
 322           have been completed and the protection measures have been  
 323           installed, but before any clearing or grading begins; and
- 324           (3) after all construction activities are completed, to determine the  
 325           level of compliance with the limits of tree canopy disturbance.
- 326       (e) Scheduling requirements. A person must request an inspection by:
- 327           (1) the Director of Permitting Services within the time required to  
 328           schedule an inspection under Section 19-12; or
- 329           (2) the Planning Director within the time required to schedule an  
 330           inspection under Section 22A-15.
- 331       (f) Coordination. The Department of Permitting Services and the  
 332           Planning Department must coordinate their inspections to avoid  
 333           inconsistent activities relating to the limits of tree canopy disturbance.

334       **55-11. Penalties and enforcement.**

- 335       (a) Enforcement authority. The Department of Permitting Services has  
 336           enforcement authority for any activity approved under Section 55-7  
 337           and the Planning Board has enforcement authority for any activity  
 338           approved under Section 55-8.
- 339       (b) Enforcement action. The Director of Permitting Services or the  
 340           Planning Director may issue a notice of violation, corrective order,  
 341           stop-work order, or civil citation to any person that causes or allows a  
 342           violation of this Chapter.
- 343       (c) Civil penalty. The maximum civil penalty for any violation of this  
 344           Chapter or any regulation adopted under this Chapter is \$1,000. Each  
 345           day that a violation continues is a separate offense.

346 (d) Other remedy. In addition to any other penalty under this Section, the  
 347 Planning Board may seek any appropriate relief authorized under  
 348 Section 22A-16.

349 **55-12. Administrative enforcement.**

350 (a) Administrative order. In addition to any other remedy allowed by  
 351 law, the Planning Director may at any time, including during the  
 352 pendency of an enforcement action under Section 55-11, issue an  
 353 administrative order requiring the violator to take one or more of the  
 354 following actions within the time specified by the Planning Director:

- 355 (1) stop the violation;  
 356 (2) stabilize the site to comply with a forest conservation plan;  
 357 (3) stop all work at the site;  
 358 (4) restore or reforest unlawfully cleared areas;  
 359 (5) submit a limits of tree canopy disturbance, forest conservation  
 360 plan, or tree save plan for the net tract area;  
 361 (6) place forested land, reforested land, or land with individual  
 362 significant trees under long-term protection by a conservation  
 363 easement, deed restriction, covenant, or other appropriate legal  
 364 instrument; or  
 365 (7) submit a written report or plan concerning the violation.

366 (b) Effectiveness of order. An order issued under this Section is effective  
 367 when it is served on the violator.

368 **Article 4. Administration**

369 **55-13. General.**

370 (a) Regulations. The County Executive must adopt regulations, including  
 371 technical manuals, to administer this Chapter, under Method 2. The

372 regulations must include procedures to amend a limits of tree canopy  
 373 disturbance.

374 (b) Technical manual. The technical manual must include guidance and  
 375 methodologies for:

376 (1) preparing and evaluating maps of the aerial extent of the tree  
 377 canopy and the limits of tree canopy disturbance;

378 (2) providing protective measures during and after clearing or  
 379 construction, including root pruning techniques and guidance  
 380 on removing trees that are or may become hazardous;

381 (3) monitoring and enforcing the limits of disturbance and the  
 382 limits of tree canopy disturbance; and

383 (4) other appropriate guidance for program requirements consistent  
 384 with this Chapter and applicable regulations.

385 (c) Administrative fee. The Planning Board and the County Executive  
 386 may each, by Method 3 regulation, establish a schedule of fees to  
 387 administer this Chapter.

388 (d) Reports. On or before March 1 of each year, the Department of  
 389 Permitting Services, the Planning Board, and the Department of  
 390 Environmental Protection each must submit an annual report on the  
 391 County tree conservation program to the County Council and County  
 392 Executive.

393 (e) Comprehensive plan for mitigation. The Department of  
 394 Environmental Protection must develop and maintain a  
 395 comprehensive County-wide plan to mitigate disturbance to tree  
 396 canopy. The Department of Environmental Protection should develop  
 397 the plan in consultation with the Planning Department, the  
 398 Department of Transportation, the Department of General Services,

399 the Department of Economic Development, the Soil Conservation  
 400 District, and other agencies as appropriate.

401 (f) Sediment control permit application. To prevent circumvention of  
 402 this Chapter, the Planning Director and the Director of Permitting  
 403 Services may require a person to submit an application for a sediment  
 404 control permit enforceable under this Chapter if that person:

405 (1) limits the removal of tree canopy or limits land disturbing or  
 406 construction activities to below requirements for a sediment  
 407 control permit; and

408 (2) later disturbs additional tree canopy or land on the same  
 409 property, or by any other means, such that in total, a sediment  
 410 control permit would be required.

411 **55-14. Tree Canopy Conservation Fund.**

412 (a) General. There is a County Tree Canopy Conservation Fund. The  
 413 Fund must be used in accordance with the adopted County budget and  
 414 as provided in this Section.

415 (b) Mitigation fees paid into the Tree Canopy Conservation Fund. Money  
 416 deposited in the Tree Canopy Conservation Fund to fulfill mitigation  
 417 requirements must be spent on establishing and enhancing tree  
 418 canopy, including costs directly related to site identification,  
 419 acquisition, preparation, and other activities that increase tree canopy,  
 420 and must not revert to the General Fund. The Fund may also be spent  
 421 on permanent conservation of priority forests, including identification  
 422 and acquisition of a site within the same subwatershed where the  
 423 disturbance occurs.

424 (c) Fines paid into the Tree Canopy Conservation Fund. Any fines  
 425 collected for noncompliance with a limits of tree canopy disturbance

426 or forest conservation plan related to tree canopy disturbance must be  
427 deposited in a separate account in the Tree Canopy Conservation  
428 Fund. The Fund may be used to administer this Chapter.

429 (d) Use of the Tree Canopy Conservation Fund.

430 (1) Any fees collected for mitigation must be used to:

431 (A) establish tree canopy;

432 (B) enhance existing tree canopy through non-native invasive  
433 and native invasive species management control,  
434 supplemental planting, or a combination of both;

435 (C) establish forest; and

436 (D) acquire protective easements for existing forests or areas  
437 with existing tree canopy that are not currently protected,  
438 including forest mitigation banks approved under Section  
439 22A-13.

440 (2) The canopy established under paragraph (1)(A) should shade  
441 impervious surfaces, manage stormwater runoff, and generally  
442 increase tree canopy coverage. Trees native to the Piedmont area  
443 of the County should be used, if feasible, to meet the mitigation  
444 requirements of this Chapter.

445 (3) The establishment of tree canopy to satisfy the mitigation  
446 requirements of a project must occur in the subwatershed where  
447 the project is located. Otherwise the tree canopy may be  
448 established anywhere in the County.

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## LEGISLATIVE REQUEST REPORT

Bill 35-12

Tree Canopy Conservation

- DESCRIPTION:** This bill introduces requirements for fees when tree canopy is disturbed. Generally, it applies when a sediment control permit is required under Chapter 19 of the Montgomery County Code and the trees are not subject to Article II of Chapter 22A. The bill requires the fees to be used to plant new trees to mitigate for the loss of benefits provided by the tree canopy. The new trees will be located using a comprehensive approach to enhancing tree canopy across the County.
- PROBLEM:** Currently, the Forest Conservation Law (FCL) does not apply to most disturbances to individual trees outside of forests during development. Also, it does not apply to development activity on lots less than approximately one acre. In recent years, a significant increase in development activity on small lots that are not subject to the FCL has raised awareness of the value of trees to all residents, as well as the need to provide communities some compensation for the loss of trees when development occurs.
- GOALS AND OBJECTIVES:** This bill is designed to provide mitigation for the loss or disturbance to tree canopy not currently regulated by the FCL, as well as specifying that the fees will be used to plant trees across the county using a comprehensive approach that will enhance the existing canopy.
- COORDINATION:** Department of Permitting Services, Maryland-National Capital Park & Planning Commission, Department of Environmental Protection
- FISCAL IMPACT:** See Fiscal and Economic Impact Statement
- ECONOMIC IMPACT:** See Fiscal and Economic Impact Statement
- EVALUATION:**
- EXPERIENCE ELSEWHERE:** The Forest Conservation Law, Chapter 22A of the Montgomery County Code, requires mitigation when forest land and/or champion trees, as well as certain other vegetation, are disturbed.
- SOURCE OF INFORMATION:** Stan Edwards, Division Chief, Division of Environmental Policy and Compliance, Department of Environmental Protection (7-7748)
- APPLICATION WITHIN MUNICIPALITIES:** This bill applies to all municipalities if the land disturbing activity requires a sediment control permit under Chapter 19 of the Montgomery County Code that is approved and enforced by the Department of Permitting Services.
- PENALTIES:** Class A



OFFICE OF THE COUNTY EXECUTIVE  
ROCKVILLE, MARYLAND 20850

Isiah Leggett  
County Executive

MEMORANDUM

October 25, 2012

TO: Roger Berliner, President  
County Council

FROM: Isiah Leggett   
County Executive

SUBJECT: Proposed Legislation: Tree Canopy Conservation Program

I am transmitting for Council introduction a bill that creates a Tree Canopy Conservation Program which is intended to protect and enhance the County's valuable tree canopy. I am also transmitting a Legislative Request Report, Fiscal Impact Statement, and Economic Impact Statement.

This bill introduces requirements for fees when tree canopy is disturbed as a result of development activity. Generally, the bill applies when a sediment control permit is required under Chapter 19 of the Montgomery County Code and the trees are not subject to the County's Forest Conservation Law (FCL). The bill requires the fees to be used to plant new trees to mitigate the loss of benefits that were provided by the disturbed tree canopy.

When the FCL was adopted, the majority of development in the County was occurring on large, previously undeveloped parcels, much of which was forested. The FCL was intended to provide compensation for the loss of forested land through the long-term protection of undisturbed forest or the planting of new forests. As the amount of undeveloped land in the County has diminished, the majority of development is now occurring on smaller, previously undeveloped "in-fill" properties or as the result of redevelopment of previously built-out sites. While these parcels contain few forests, they often contain significant tree canopy due to the presence of individual trees or clusters of trees not meeting the definition of a forest. These trees provide significant benefits to communities, including helping to reduce ambient temperatures, clean the air, manage stormwater, and generally increasing the economic value of the property. However, the majority of these trees are not covered under the FCL and, as a result, there is no mechanism requiring compensation for the loss of these trees.

The Tree Canopy Conservation Program would be implemented by the Department of Permitting Services or the Montgomery County Planning Department, depending on the nature of the development activity. The process has been designed to be as streamlined as possible by incorporating tree canopy review into the existing sediment control permitting process or the existing FCL review process. The bill outlines the process for determining the extent of disturbed tree canopy subject to regulation, but the specific fee structure would be set by regulation.

20

Roger Berliner  
October 25, 2012  
Page 2

If you have any questions about this bill, please contact Bob Hoyt, Director of the Department of Environmental Protection, at 240-777-7730 or [bob.hoyt@montgomerycountymd.gov](mailto:bob.hoyt@montgomerycountymd.gov).

Attachments (4)

- c. Bob Hoyt, Director Department of Environmental Protection
- Joe Beach, Director, Finance Department
- Kathleen Boucher, Assistant Chief Administrative Officer
- Marc Hansen, County Attorney
- Diane Jones, Director, Department of Permitting Services
- Jennifer Hughes, Director, Office of Management and Budget



ROCKVILLE, MARYLAND

MEMORANDUM

September 25, 2012

TO: Timothy L. Firestine, Chief Administrative Officer

FROM: Jennifer A. Hughes, Director, Office of Management and Budget  
Joseph F. Beach, Director, Department of Finance

SUBJECT: Bill XX-12 – Tree Canopy Conservation

Please find attached the fiscal and economic impact statement for the above-referenced legislation.

JAH:ms

Attachment

c: Kathleen Boucher, Assistant Chief Administrative Officer  
Lisa Austin, Offices of the County Executive  
Joy Nurmi, Special Assistant to the County Executive  
Patrick Lacefield, Director, Public Information Office  
Michael Coveyou, Department of Finance  
David Platt, Department of Finance  
Stan Edwards, Department of Environmental Protection  
Barbara Comfort, Department of Permitting Services  
Reginald Jetter, Department of Permitting Services  
Alex Espinosa, Office of Management and Budget  
Amy Wilson, Office of Management and Budget  
Matt Schaeffer, Office of Management and Budget  
Naeem Mia, Office of Management and Budget

**Fiscal Impact Statement**  
Bill XX-12 – Tree Canopy Conservation

**1. Legislative Summary**

The proposed bill revises County law regarding tree canopy conservation in an effort to save, maintain, and establish tree canopy for the benefits of County residents and future generations. The bill would maximize tree canopy retention and establishment by establishing fees to be assessed when disturbance to the tree canopy occurs; these fees would then fund mitigation activities to restore the disturbed tree canopy.

The Department of Permitting Services (DPS) and the Maryland National Capital Park and Planning Commission (M-NCPPC) will administer the law; the Department of Environmental Protection (DEP) will have oversight of tree canopy restoration activities.

**2. An estimate of changes in County revenues and expenditures regardless of whether the revenues or expenditures are assumed in the recommended or approved budget. Includes source of information, assumptions, and methodologies used.**

DEP has indicated that new work created as a result of this legislation (tree canopy restoration activities) will have costs that will correlate to the amount of received fees. While the cost of future work is not known, DEP has asserted that any future costs related to tree canopy restoration activities will not exceed collected fees.

**A. M-NCPPC has estimated a cost of \$12,480 annually and a one-time first-year expenditure of \$3,600 related to planning the tree canopy restoration policies outlined in the bill. Some of the specific planning activities related to tree canopy restoration conducted by MNCPPC<sup>1</sup> include:**

- Development of a planting plan (One-time investment of 20 work hours)
- Annual Report development (20 work hours)
- Development of a Fee Schedule (One-time investment of 40 work hours)
- Annual adjustment of fee schedules (8 work hours)
- Plan Review Time (60 forest conservation plans per year @ 3 hours per plan)

**B. DPS has indicated fiscal impacts relating to the inspection and fine assessments of tree canopy disturbance of approximately \$67,118 annually in the following work areas:**

**500 additional inspection and assessment projects (\$25,752/annually)**

- **Permit Technicians (250 work hours): \$8,878**  
(.5 Hrs each project @ Grade 19 midpoint salary of \$56,828 plus benefits<sup>2</sup> or \$35.51/hr)
- **Permit Services Specialists/Plan Reviewers (125 work hours): \$6,166**  
(.25 Hrs each project @ Grade 26 midpoint salary of \$78,929 plus benefits or \$49.33/hr)
- **Inspectors (250 work hours): \$10,708**  
(.5 Hrs each project @ Grade 23 midpoint salary of \$68,531 plus benefits or \$42.83/hr)

**200 additional complaints relating to tree loss (\$41,366/annually)**

- **Permit Technicians (200 work hours): \$7,102**  
(1 Hr each project @ Grade 19 midpoint salary of \$56,828 plus benefits or \$35.51/hr)

<sup>1</sup> Cost estimates are based on a rate of \$60 per hour.

<sup>2</sup> Benefit calculation is 30 percent of base pay.

23

- **Inspectors (800 work hours): \$34,264**  
(4 Hrs each project @ Grade 23 midpoint salary of \$68,531 plus benefits or \$42.83/hr)

Revenues resulting from this legislation will depend on the determination of a rate model for tree canopy disturbance fees. The rate model will be established via method 2 regulation.

**3. Revenue and expenditure estimates covering at least the next 6 fiscal years.**

DEP has indicated that new work created as a result of this legislation (tree canopy restoration activities) will have costs that will correlate to the amount of received fees. While the cost of future work is not known, DEP has asserted that any future costs related to tree canopy restoration activities will not exceed collected fees.

DPS reports future expenditures of approximately \$62,118 annually (as explained above). The total six-year expenditures for DPS are approximately \$402,708.

M-NCPPC reports annual expenditures of \$12,480 with a one-time startup charge of \$3,600 to implement the planning and implementation plan for the bill (as explained above). Total six-year expenditures for M-NCPPC are approximately \$78,480.

Revenues resulting from this legislation will depend on the determination of a rate model for tree canopy disturbance fees. The rate model will be established via method 2 regulation.

**4. An actuarial analysis through the entire amortization period for each bill that would affect retiree pension or group insurance costs.**

Not applicable. This bill does not affect retiree pension or group insurance costs.

**5. Later actions that may affect future revenue and expenditures if the bill authorizes future spending.**

The bill authorizes the creation of a Tree Canopy Conservation Fund that would fund tree canopy restoration activities in the future.

**6. An estimate of the staff time needed to implement the bill.**

While DEP does not expect the need for additional staff time to implement the bill, future staff needs could change depending on the extent of tree canopy restoration activities resulting from the bill.

DPS reports the need for an additional 1,625 work hours annually in different job classes to implement the bill.

MNCPPC reports the need for an additional 208 hours annually and 60 hours to start up the program in the first year of implementation.

**7. An explanation of how the addition of new staff responsibilities would affect other duties.**

(24)

While DEP does not expect the need for additional staff time to implement the bill, the actual impact on staff will depend on the extent of tree canopy restoration activities as a result of implementing the bill.

DPS reports that the bill would impact both the workload of permitting staff and permit reviewing staff. Estimates for costs of additional work are provided above.

M-NCPPC reports that the bill would impact the workload of forest conservation planners. Estimates for costs of addition work are provided above.

**8. An estimate of costs when an additional appropriation is needed.**

Not applicable.

**9. A description of any variable that could affect revenue and cost estimates.**

DEP has indicated that costs and revenues relating to tree canopy restoration will be dependent on the amount of fees received. The rate model for fees will be established by method 2 regulation.

Article IV, Section 55-13(c) allows for the establishment of a fee for administering the program; this fee would be adopted under method 3. An administrative fee has not been established but could impact revenue and cost estimates.

Article III, Section 55-11(c) establishes a maximum \$1,000 civil penalty for violation of the proposed legislation. Fines would be deposited into the Tree Canopy Conservation Fund and could be used to implement any part of the bill. Estimates of revenue from these fines are difficult to predict without knowing the extent of the violations.

**10. Ranges of revenue or expenditures that are uncertain or difficult to project.**

DEP has indicated that costs and revenues relating to tree canopy restoration will be dependent on the amount of fees received. The rate model for fees will be established by method 2 regulation.

Article IV, Section 55-13(c) allows for the establishment of a fee for administering the program; this fee would be adopted under method 3. An administrative fee has not been established but could impact revenue and cost estimates.

Article III, Section 55-11(c) establishes a maximum \$1,000 civil penalty for violation of the proposed legislation. Fines would be deposited into the Tree Canopy Conservation Fund and could be used to implement any part of the bill. Estimates of revenue from these fines are difficult to predict without knowing the extent of the violations.

**11. If a bill is likely to have no fiscal impact, why that is the case.**

Not applicable.

25

**12. Other fiscal impacts or comments.**

This bill creates a Tree Canopy Conservation Fund as the account for fees collected as a result of tree canopy disturbance and the source of funds for tree canopy restoration projects. DEP would manage this fund.

**13. The following contributed to and concurred with this analysis:**

Stan Edwards, Department of Environmental Protection

Barbara Comfort, Department of Permitting Services

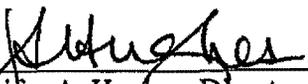
Reginald Jetter, Department of Permitting Services

Rose Krasnow, MNCPPC

Amy Wilson, Office of Management and Budget

Matt Schaeffer, Office of Management and Budget

Naem Mia, Office of Management and Budget

  
\_\_\_\_\_  
Jennifer A. Hughes, Director  
Office of Management and Budget

9/21/12  
Date

26

**Economic Impact Statement**  
Council Bill XX-12, Tree Canopy Conservation

**Background:**

The purpose of this legislation is to: 1) save, maintain, and establish tree canopy for the benefit of County residents and future generations; 2) maximize tree canopy retention and establishment; 3) establish procedures, standards, and requirements to minimize the loss and disturbance of tree canopy as a result of development; 4) provide for mitigation when tree canopy is lost or disturbed; and 5) establish a fund for tree canopy conservation projects, including plantings of individual trees, groups of trees, or forests, on private and public property. The proposed legislation generally revises County law regarding tree canopy conservation.

The requirements of this bill are applicable when a sediment control permit is required under Chapter 19 of the Montgomery County Code and the trees are not subject to Article II of Chapter 22A. The bill supplements the Forest Conservation Law (FCL). The FCL does not apply to most disturbances to individual trees outside of forests during development, and it does not apply to development activity on lots less than approximately one acre.

1. The sources of information, assumptions, and methodologies used.

Not applicable

2. A description of any variable that could affect the economic impact estimates.

The economic impact of the bill will vary based on a number of factors including the amount of acreage that is the subject of the sediment control permit, the area of tree canopy on land covered by such a permit, the amount of the fee imposed per square foot of tree canopy disturbed as a result of the development activity subject to the permit, and the market conditions at the time of development. The cost of development for each property will be affected by the amount of tree canopy disturbed times the fee.

3. The Bill's positive or negative effect, if any on employment, spending, saving, investment, incomes, and property values in the County.

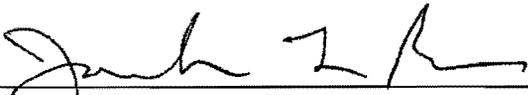
The bill may increase the cost for developing some properties, and those costs may affect the gross profit margin to the developers or the price of the property. However, some studies indicate that property with trees can have a higher value than property that is cleared of trees. To the extent that the proposed legislation encourages developers to retain trees, they may realize a higher return than if they clear the site. However, this analysis would vary by property and market conditions and would need to factor in the cost of removing trees as well as the impact of the cost of the fee. With a specific fee structure it will be possible to estimate these potential costs.

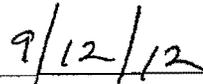
**Economic Impact Statement**  
Council Bill XX-12, Tree Canopy Conservation

4. If a Bill is likely to have no economic impact, why is that the case?

Not applicable; see item 3.

5. The following contributed to and concurred with this analysis: David Platt and Mike Coveyou, Finance and Stan Edwards, Environmental Protection.

  
\_\_\_\_\_  
Joseph F. Beach, Director  
Department of Finance

  
\_\_\_\_\_  
Date

*Circles 29-101 are found in the February 25 Committee packet  
and are not reprinted in this packet.*

*Circles 102-161 are found in the April 1 Committee packet  
and are not reprinted in this packet.*

# Jurisdictions Surveyed

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- Prince George's County
- Fairfax County
- Washington, DC
- Athens-Clarke County, GA
- Austin, TX
- Portland, OR

# Key Questions

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Analysis included three general parameters:

- Scope – What types of properties and activities are covered?
- Process – What is the jurisdiction's review and approval process?
- Mitigation Requirements – How do the mitigation requirements in other jurisdictions compare to Bill 35-12?

# Additional Questions

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- How likely are to you review each scenario? In other words, do you see many plans that look like these?
- Does it matter whether or not the development is new construction or a tear-down and rebuild?
- Would it matter if these lots were developed as single-lots or as part of a subdivision?
- Would zoning have an impact on the outcomes?
- Would the condition of the trees make a difference?
- Are there any other aspects that influence the outcome (e.g., critical areas)?

# Jurisdiction Overview – Washington, DC

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- Special tree permitting system “requires fees to compensate for loss of community assets and maintain character of neighborhoods”
- Applies on residential and non-residential property
- Applies to removal of any tree 55” in circumference (17.5” in diameter) or greater
- Mitigation can be payment of a fee (\$35/circumference inch) or planting the same number of inches removed
- No review process except to verify hazardous and nuisance trees

# Jurisdiction Overview – Athens-Clarke County, GA

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- Athens-Clarke County created the Community Tree Management Ordinance to “sustain and enhance the functions and benefits of trees and the community forest for its citizens”
- Applies on non-residential property and residential property when subdivision results in five or more lots (does not apply to pre-existing SF lots)
- Requires minimum canopy coverage through conservation of existing canopy and planting
- Review process with staff similar to MC’s FCL process where reviewer discretion is required

# Jurisdiction Overview – Austin, TX

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- Austin’s requirements are “designed to achieve a balance of re-forestation and preservation... to achieve the best long-term benefit for the community”
- Applies on residential and non-residential property, including trees potentially affected on adjacent properties
- No grading or other disturbance is allowed within ½ of the CRZ of all trees 19” or larger
- If trees are removed, standard mitigation is 100% diameter inch replacement, up to 300% diameter inch replacement for specimen trees
- Review process with staff similar to MC’s FCL process where reviewer discretion is required

# Jurisdiction Overview – Portland, OR

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- Portland's Urban Forestry program regulates "236,000 street trees, 1.2 million park trees, and innumerable private property trees... to differing degrees"
- Applies on residential and non-residential property
- Requires minimum canopy coverage through conservation of existing individual trees and planting
- Requires 1/3 of all trees over 12" diameter to be preserved on site; if preservation cannot be met, then mitigation in form of planting or fee-in-lieu of \$1,200 for each tree removed
- Review process with staff similar to MC's FCL process where reviewer discretion is required

# Information Provided to Other Jurisdictions

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- DEP obtained information from DPS for three sediment control applications (small, medium, and large lots) filed in Montgomery County.
- For each plan, DEP provided the other jurisdictions:
  - A site plan, with the extent of tree canopy delineated
  - A pre-development aerial photograph of the property
  - A table with data on the area of (1) the property, (2) the tree canopy, and (3) the tree canopy disturbed
  - Data on the diameter, location and family of individual trees on the site.

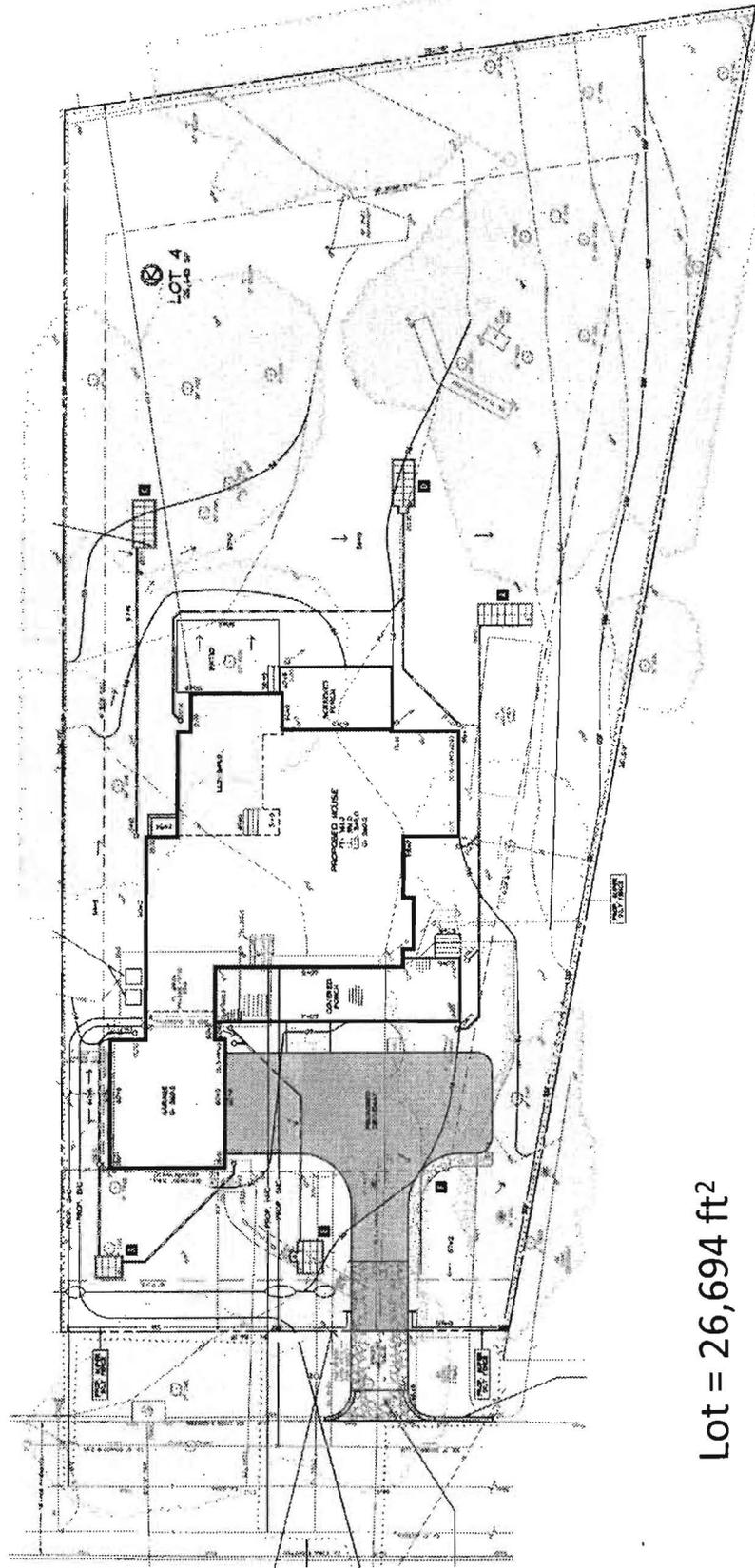
# Summary of Plans Reviewed

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	Plan 1	Plan 2	Plan 3
Area of Lot (ft <sup>2</sup> )	9,023	26,694	158,976
Area of Canopy on Lot (ft <sup>2</sup> )	5,658	14,015	58,105
% of Canopy on Lot	63%	53%	37%
Area of LOD (ft <sup>2</sup> )	9,708	27,929	114,435
Area of Canopy within LOD (ft <sup>2</sup> )	6,323	14,870	31,475



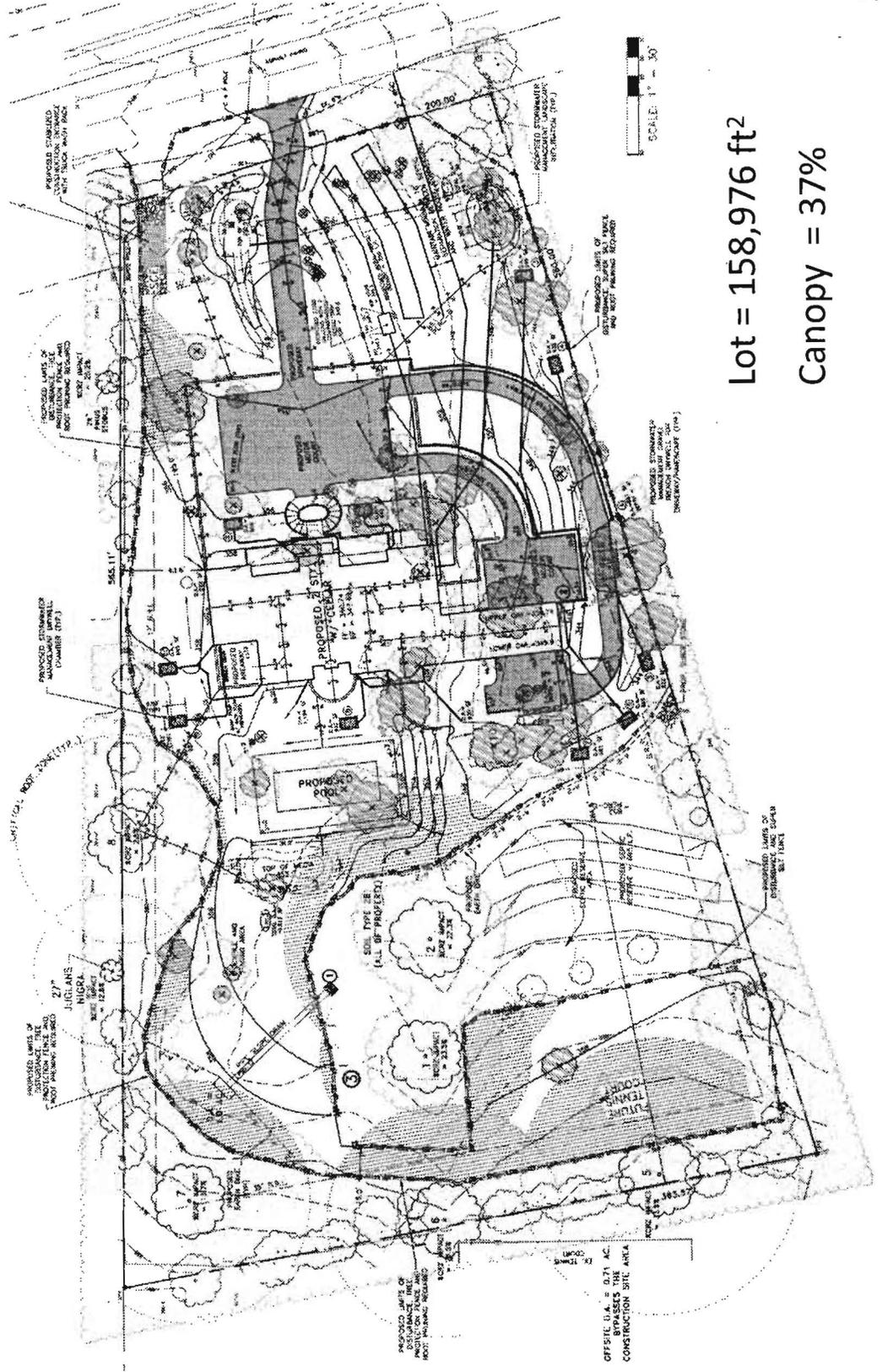
# Plan 2



Lot = 26,694 ft<sup>2</sup>

Canopy = 53%

# Plan 3



Lot = 158,976 ft<sup>2</sup>

Canopy = 37%

# Jurisdiction Comparison

If the plans were implemented exactly as shown on these drawings, the fees would be:

	Plan 1	Plan 2	Plan 3
Prince George's County			
Fairfax			
Washington, DC	\$22,777	\$23,860	\$17,703
Athens-Clarke County, GA	n/a	n/a	n/a
Austin, TX	\$36,600	\$49,650	\$32,550
Portland, OR	\$8,400	\$20,400	\$86,400
Bill 35-12	\$2,278	\$8,153	\$23,549



## renewingmontgomery

Tree Canopy Bill 35-12 was introduced without including comments from the building industry so it is flawed beyond the ability to amend it. There has never been any study or data that demonstrates there is a problem that requires legislation. *The most recent MNCPPC study shows our canopy is thriving by any standard.* Why rush to this far reaching legislation that is based on anecdotal evidence. Renewing Montgomery has a better proposal.

Our proposal provides more incentives for the property owner to replant trees on their property and avoids devaluing properties that have trees. In addition our proposal increases the County canopy by requiring replanting even on properties without any trees. *County regulations require the removal of the trees so the focus should be on replanting a renewable resource.* In summary our proposal allows the property owner and their neighbors to benefit from replanting trees, thereby providing an incentive to replant.

The following is a list of the specific improvements our proposal includes:

1. The new trees will be planted where trees are removed and will thrive.
2. The new trees will add value to the property.
3. This alternative will both replace and increase the County tree canopy.
4. The fee in lieu is based on the value of a new tree – not satellite imagery of canopy square footage, which will include invasive species and canopy overhanging from adjacent properties. Basing the fee on the value of a tree will avoid establishing a fee that may be used as a deterrent to home improvements.
5. All properties subject to a sediment control plan will have a tree planting requirement - regardless if there were existing trees.
6. Tree replacement requirements will be based on a chart that accounts for the size of the property to establish a realistic replanting plan.
7. The required trees will be listed on the sediment control plan; therefore they will be bonded and inspected by the County – exactly like the trees planted in the right of way. No additional plans, plan review, or County inspections are needed.
8. We request the Council authorize a County canopy study to identify if there is a problem to address. The new state law requires the state to do a canopy coverage assessment for each county, every 5 years. The state goal is 40%, the current coverage is 50% for Montgomery County. Our County has 20% more canopy coverage than Fairfax County.
9. The County will educate the general public and citizen associations on the benefits of trees. The County will promote the various Tree Planting Tax Incentives that are contained within the new state tree bill before generating new fees, new regulations, and new staff positions.

We oppose this Bill because it will not result in planting trees or increasing the canopy where the trees are removed. Other than a deterrent for home improvements, it is just another fee that is unnecessary since the County already has over 6 million dollars to plant trees. The Bill will require additional engineering and consultant fees both on the private and public side, which will quickly negate any incentive to replant trees. The fee will add no value to the lot and effectively transfers the responsibility for replanting trees from the property owner to the County. The Bill will actually encourage property owners to remove trees to avoid the fee, and the general public will be outraged that the County is now regulating trees on their private property which they planted and maintained.

The advantages of our alternative over the proposed Bill.

1. Trees will be planted where they are removed – not somewhere else.
2. The private sector can plant a tree at a far less cost and faster than the County.
3. Trees will be planted even if no trees are removed thereby increasing the County canopy.
4. Will not regulate trees on private property which has historically been a basic inherent property right.
5. Will not penalize or devalue those who own properties with trees.
6. The new trees will have an immediate impact on those most affected by the removal of trees.
7. There are no fees that may act as a deterrent to home improvements or the removal of hazardous trees.
8. The required plan is simple and inexpensive and does not require additional costs for arborists or engineers.
9. The County has over 6 million dollars for trees. Why essentially tax only those property owners seeking to improve their property. The Bill will not produce much revenue but will act as a deterrent to those who want to improve their property.
10. No additional County staff, satellite overlays, or plans are needed to implement this alternative.
11. Will not penalize property owners for removing invasive species such as bamboo and mulberry trees.
12. Will not penalize or discourage property owners for removing dangerous trees prone to storm damage such as poplars and locust trees.
13. The current source of funding for County-Wide tree planting is appropriately tax revenue generated on a County-Wide basis. This Bill avoids targeting only property owners who remove trees on their private property.
14. A current canopy study will allow the County to evaluate the existing canopy and evaluate the effectiveness of our proposal.
15. Will allow time for community associations to be educated on the benefits of trees, incentives, and to provide input.

Tree Canopy Planting Requirement min 1.5" caliper trees for future canopy goals

19-Jun-13			Total	# of	# of	Total	Optional	SF at Maturity	Canopy
		Lot Size	Trees Rqd	Shade	Ornamental	trees/acre	Fee in Lieu	Canopy	Coverage
							(2)	Planted (1)	(% of Lot)
-	to	6,000	2	1	1	17.4	\$ 400.00	1,900	38%
6,001	to	8,000	3	2	1	18.7	\$ 650.00	3,400	49%
8,001	to	10,000	4	3	1	19.4	\$ 900.00	4,900	54%
10,001	to	12,000	5	3	2	19.8	\$ 1,050.00	5,300	48%
12,001	to	14,000	6	4	2	20.1	\$ 1,300.00	6,800	52%
14,001	to	16,000	7	5	2	20.3	\$ 1,550.00	8,300	55%
16,001	to	20,000	7	5	2	16.9	\$ 1,550.00	8,300	46%

4.9  
Avg.

18.9  
Avg.

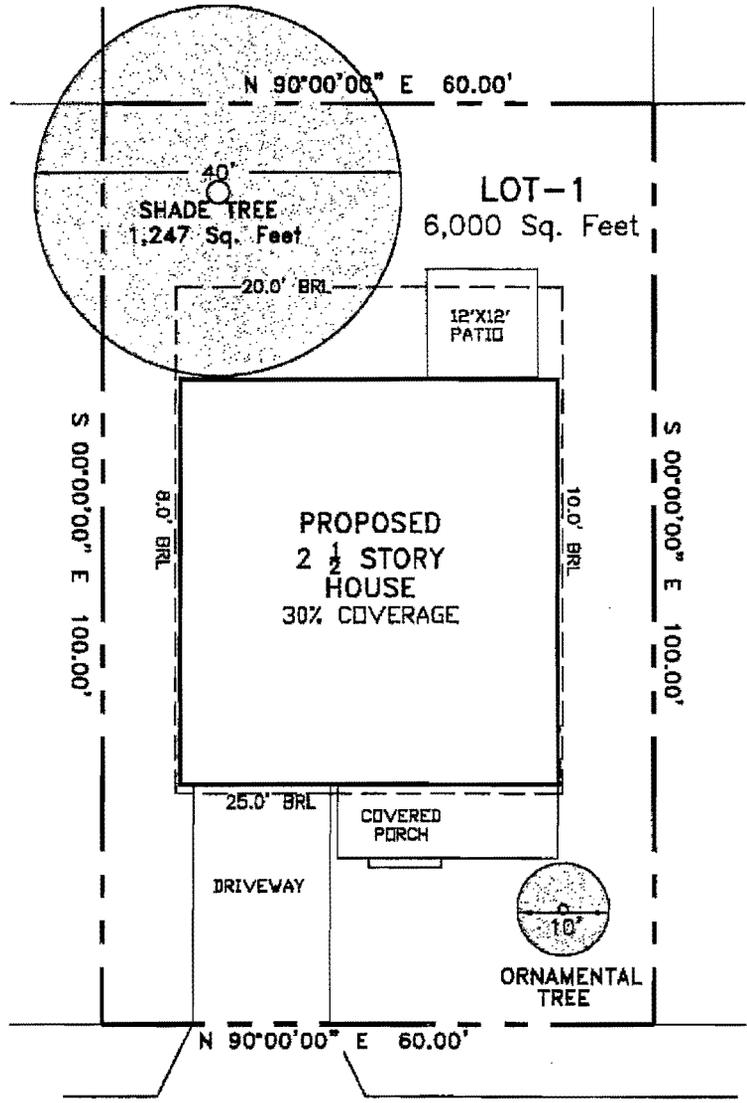
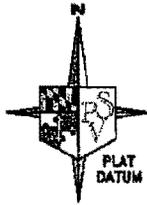
49%  
Avg.

1

Canopy Area, Diameter, Radius and Estimated DBH of Tree Trunk					
At Maturity		SF	Diameter	Radius	DBH
Shade Tree	=	1500	43.71	21.86	29
Orn. Tree	=	400	22.57	11.29	15
<b>Athens - Clarke County, Georgia: Mature Tree Canopy Sizes for Trees Growing in Urban Areas</b>					
Very Small Canopy: 150 square feet (approximately 12 x 12 feet)					
Small Canopy: 400 square feet (20 x 20 feet)					
Medium Canopy: 900 square feet (30 x 30 feet)					
Large Canopy: 1600 square feet (40 x 40 feet)					

2

Cost for 1.5" caliper tree: Ornamental is \$150 And Shade is \$250.\*  
 \*Based on Montgomery County DPS Bond Estimate for a Street Tree - see link below  
<http://permittingservices.montgomerycountymd.gov/DPS/bond/BondsEstimate.aspx>



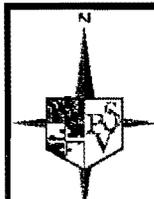
**ZONING:**

- PROPERTY ZONED: R-60
- FRONT YARD: 25.0' OR EBL
- SIDE YARD: 8.0' MIN; TOTAL OF 18.0'
- REAR YARD: 20.0'
- MAXIMUM COVERAGE: 30%

—STREET—



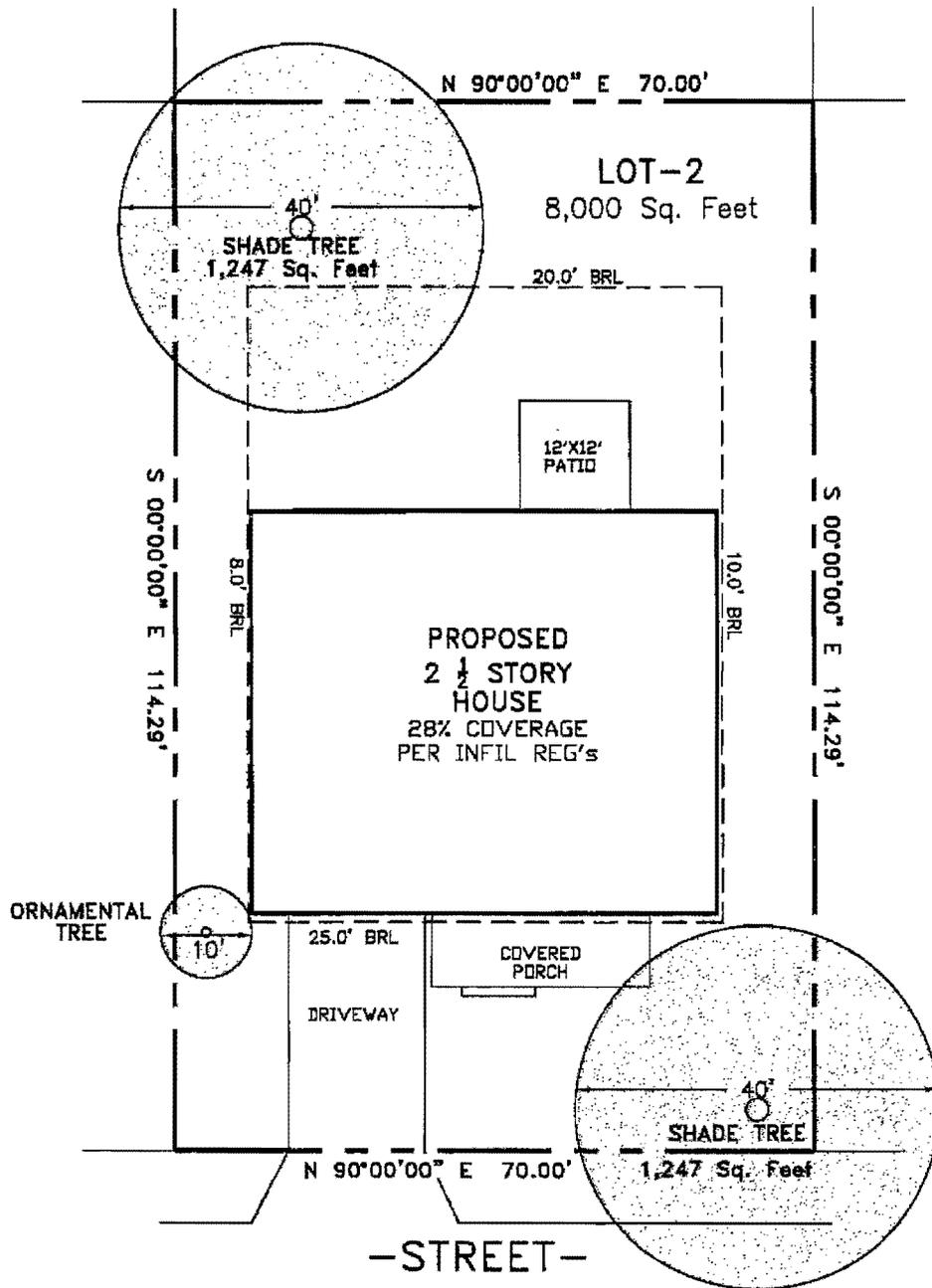
SCALE: 1"=20'



**POTOMAC VALLEY  
SURVEYS**  
20010 FISHER AVENUE, SUITE F  
POOLESVILLE, MARYLAND  
1-888-349-5090

TREE CANOPY  
EXHIBIT-1  
R-60 ZONE  
6,000 SQ.FT. LOT

DATE:06-13-13

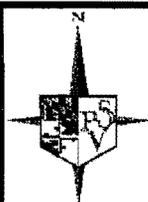


**ZONING:**

- PROPERTY ZONED: R-60
- FRONT YARD: 25.0' OR EBL
- SIDE YARD: 8.0' MIN; TOTAL OF 18.0'
- REAR YARD: 20.0'
- MAXIMUM COVERAGE: 28.0% PER INFILL REG'S



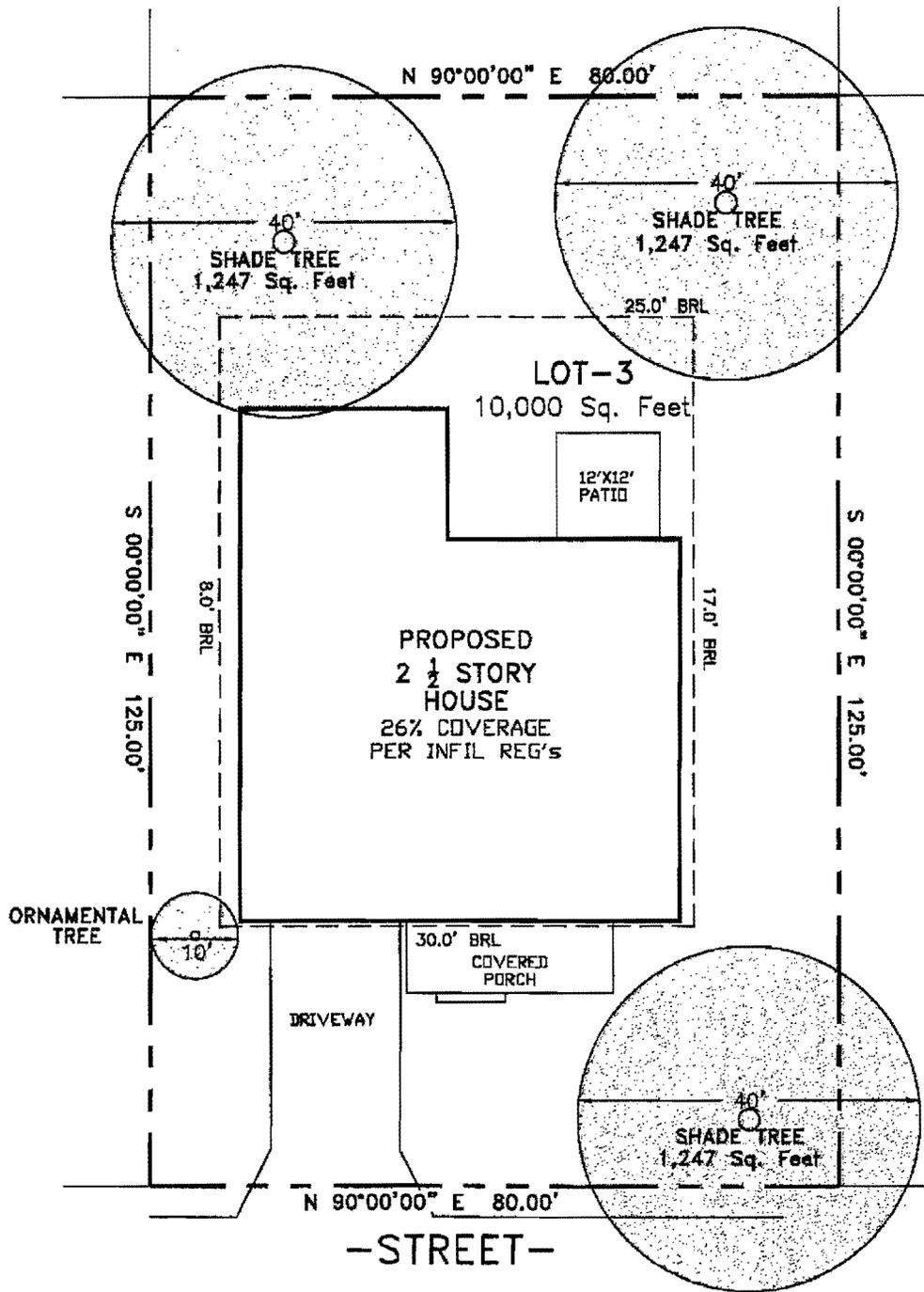
SCALE: 1"=20'



**POTOMAC VALLEY SURVEYS**  
 20010 FISHER AVENUE, SUITE F  
 POOLESVILLE, MARYLAND  
 1-888-349-5090

TREE CANOPY  
EXHIBIT-2  
 R-60 ZONE  
 8,000 SQ.FT. LOT

DATE: 06-13-13

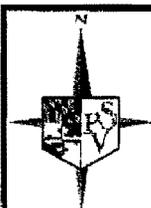


**ZONING:**

- PROPERTY ZONED: R-90
- FRONT YARD: 30.0' OR EBL
- SIDE YARD: 8.0' MIN; TOTAL OF 25.0'
- REAR YARD: 25.0'
- MAXIMUM COVERAGE: 26.0% PER INFILL REG'S



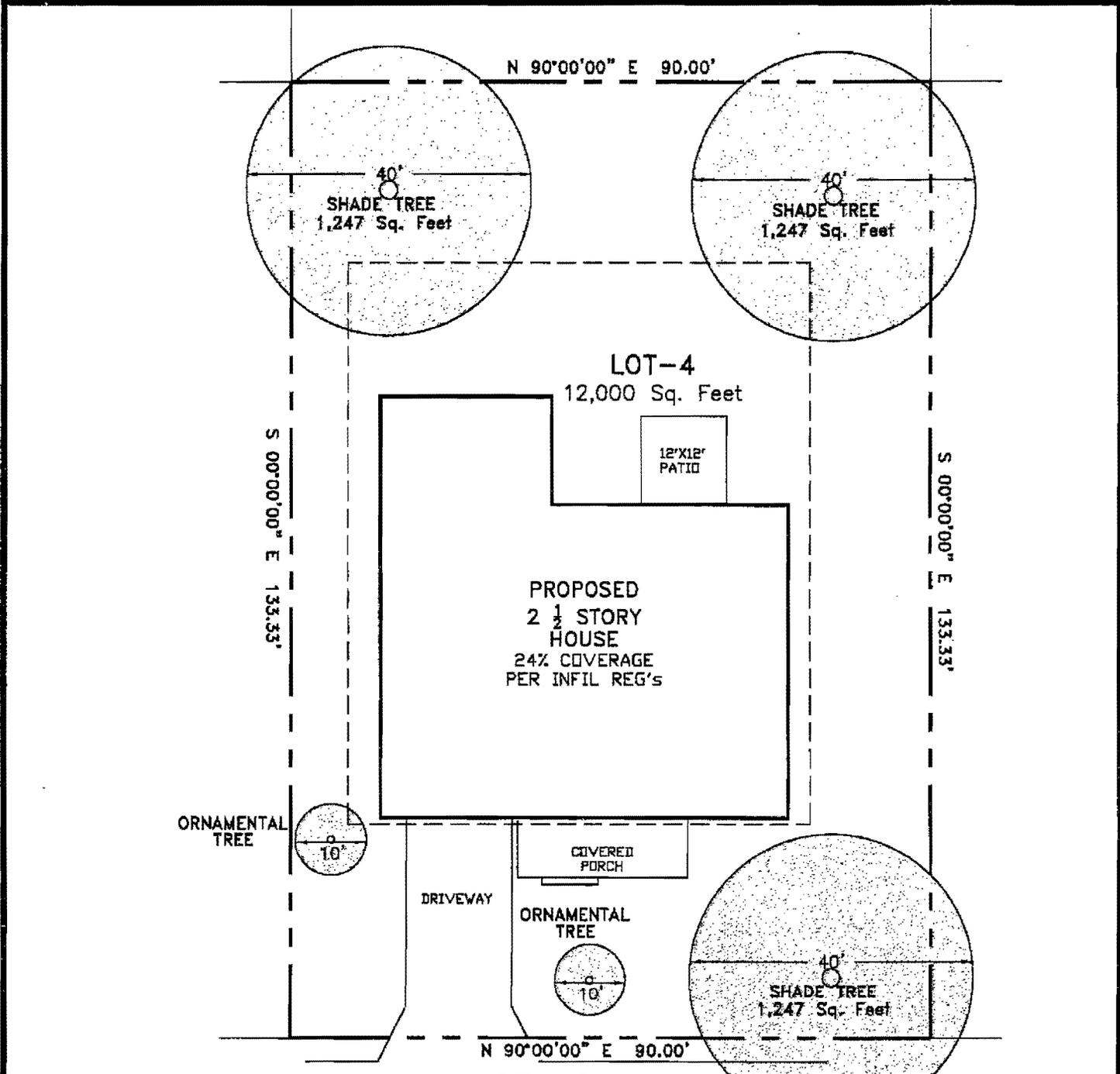
SCALE: 1" = 20'



POTOMAC VALLEY  
SURVEYS  
20010 FISHER AVENUE, SUITE F  
POOLESVILLE, MARYLAND  
1-888-349-5090

TREE CANOPY  
EXHIBIT-3  
R-90 ZONE  
10,000 SQ.FT. LOT

DATE: 06-13-13



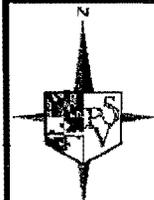
-STREET-

**ZONING:**

- PROPERTY ZONED: R-90
- FRONT YARD: 30.0' OR EBL
- SIDE YARD: 8.0' MIN; TOTAL OF 25.0'
- REAR YARD: 25.0'
- MAXIMUM COVERAGE: 24.0% PER INFILL REG's



SCALE: 1"=20'



**POTOMAC VALLEY  
SURVEYS**  
20010 FISHER AVENUE, SUITE F  
POOLESVILLE, MARYLAND  
1-888-349-5090

**TREE CANOPY  
EXHIBIT-4**  
R-90 ZONE  
12,000 SQ.FT. LOT

DATE:06-13-13

**Faden, Michael**

**From:** Robert Kaufman [rkaufman@mncbia.org]  
**Sent:** Thursday, June 20, 2013 10:34 AM  
**To:** Faden, Michael  
**Cc:** Floreen's Office, Councilmember; Riemer's Office, Councilmember; Berliner's Office, Councilmember; larry@cafritzbuilders.com; todd@toddwood.com; Clark Wagner; cw@carterbuildersmd.com; mimibkress@aol.com; Chuck Sullivan  
**Subject:** Tree Canopy Amendments

The Renew Montgomery organization, a separate organization unconnected to MNCBIA, recently submitted a proposal to amend the canopy bill that allows builders an alternative to the canopy calculation and fee recommended by the County Executive. Under their proposal, a property owner will be required to plant a specific number of trees on a lot that is being improved with a sediment control permit based on the size of the lot. The property owner can choose to plant the required number of trees or pay into a fund a fee based on the cost of a tree replacement using DPS calculations. The addition to the sediment control permit will include a bond amount for the tree and will include the cost of the tree in determining the application fee based on the Method 3 Regulations for Land Development permits.

The MNCBIA position has always been to support the canopy goals of the County with an effort to add, save or replace trees on a lot not covered by the existing Forest Conservation Law during development and if it is not feasible or desirable to plant the trees on site than to allow the builder/owner to pay into a fund for planting trees elsewhere in the community. The fee should be based on the actual costs of a planting a new tree selected from the list of acceptable trees. The high cost (can be up to \$8000) of removing mature trees on in-fill sites serves as a natural deterrent to removing mature trees. Additionally, the value of the lot can be enhanced with healthy trees offering a further incentive to save trees and plant trees on site.

The alternative proposed by Renew Montgomery meets the objectives of the MNCBIA and therefore the MNCBIA removes our objection to the bill with the addition of this amendment. We note however that the proposal shows a gap between lots larger than 20,000 square feet and less than 40,000 square feet. Our recommendation is to allow the property owner the choice to follow the replacement chart for canopy disturbance below 20,000 sq. ft. and require the property owner to meet the canopy calculation and pay the fee for disturbances between 20,000 sq. ft. and 40,000 sq. ft. While there may be occasions where a property owner may need to clear a significant portion of the lot to meet storm water management grading requirements, this is likely to be rare and unusual. Perhaps DPS can consider an exemption for storm water management where the grading of the site may be necessary to clear cut the site to provide the best management of the flow.

The MNCBIA observes that the County, including the developed parts often called down-county, shows a significant canopy of over 49% throughout the County and over 60% in Bethesda. Perhaps the best it has been in the past 200 years. We also note, that the major reason that builders today clear trees on in-fill sites is to meet the recently passed storm water requirement for 100% management ON-SITE. Given the extraordinary existing canopy and the conflict with the County's own regulations, the canopy bill remains problematic at best. But we can still make a reasonable contribution to conserving our precious tree canopy. We can help by removing old trees or invasive species or trees inappropriate for urban environments and replace them with trees more appropriate. This can help minimize damage during severe storms and may help reduce maintenance costs and still add value to our neighborhoods. As an industry, we are proud of our contribution to the canopy of the County through the Forest Conservation Law and through our efforts to save or plant trees as part of our landscape designs. Trees clearly add value to a home, a community and a County.

S. Robert Kaufman

**Faden, Michael**


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**From:** Mihill, Amanda  
**Sent:** Thursday, June 20, 2013 10:56 AM  
**To:** Faden, Michael  
**Subject:** FW: Bill 35-12, Tree Canopy Conservation - Utility Vegetation Management Carve Out

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**From:** [jpasternak@pepco.com](mailto:jpasternak@pepco.com) [mailto:[jpasternak@pepco.com](mailto:jpasternak@pepco.com)]  
**Sent:** Wednesday, June 12, 2013 11:10 AM  
**To:** Faust, Josh  
**Subject:** Bill 35-12, Tree Canopy Conservation - Utility Vegetation Management Carve Out

Josh:

Following up on our conversation, I am writing to ask for Councilmember Berliner's assistance in amending Bill 35-12 to achieve a result that I believe all parties agree is the right result -- namely, that the provisions of the bill do not apply to utility vegetation management. I have been working with the Executive branch since before the bill was formally introduced but we have been unable to bring this matter to closure.

This issue has been addressed in the Roadside Tree Bill (Bill 41-12). We worked with Mike Faden and reached agreement on language that addresses our concerns. We appreciate Roger's cooperation and understanding in making clear, from the very outset, that our legitimate issues would be addressed.

Bill 35-12 is intended to capture development activity. In fact, in his October 25, 2012 transmittal memorandum to the Council, the County Executive stated that the bill "introduces requirements for fees when tree canopy is disturbed as a result of development activity." Our vegetation management is not development activity. In their communications with me, the County Attorney and Kathleen Boucher have let me know that it makes sense to exclude utilities from the Tree Canopy bill using the same language that is in the latest draft of Bill 41-12. But they haven't signed off on the language yet.

Where we seem to be hung up is this: Executive staff believes that no carve out is needed because the provisions of Bill 35-12 are directed at development activity triggered by a County sediment control permit, and utilities do not need a County sediment control permit for vegetation management. We don't disagree conceptually, but we are concerned that there are some ambiguities in both the sediment control law and this bill that allow for interpretations and scenarios in which our routine vegetation management could theoretically be covered. From the utility perspective, all we are asking is that the bill state unambiguously that its provisions don't apply to vegetation management activities. The intent of the bill is not to include utility vegetation management, which is not development activity, and it makes perfect sense to make that clear by using the same language that has been agreed to and accepted by all parties in Bill 41-12, the Roadside Tree bill.

Thanks for your help, and let me know if you have any questions or need additional information.

Best regards,

Jerry

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# Process Summary

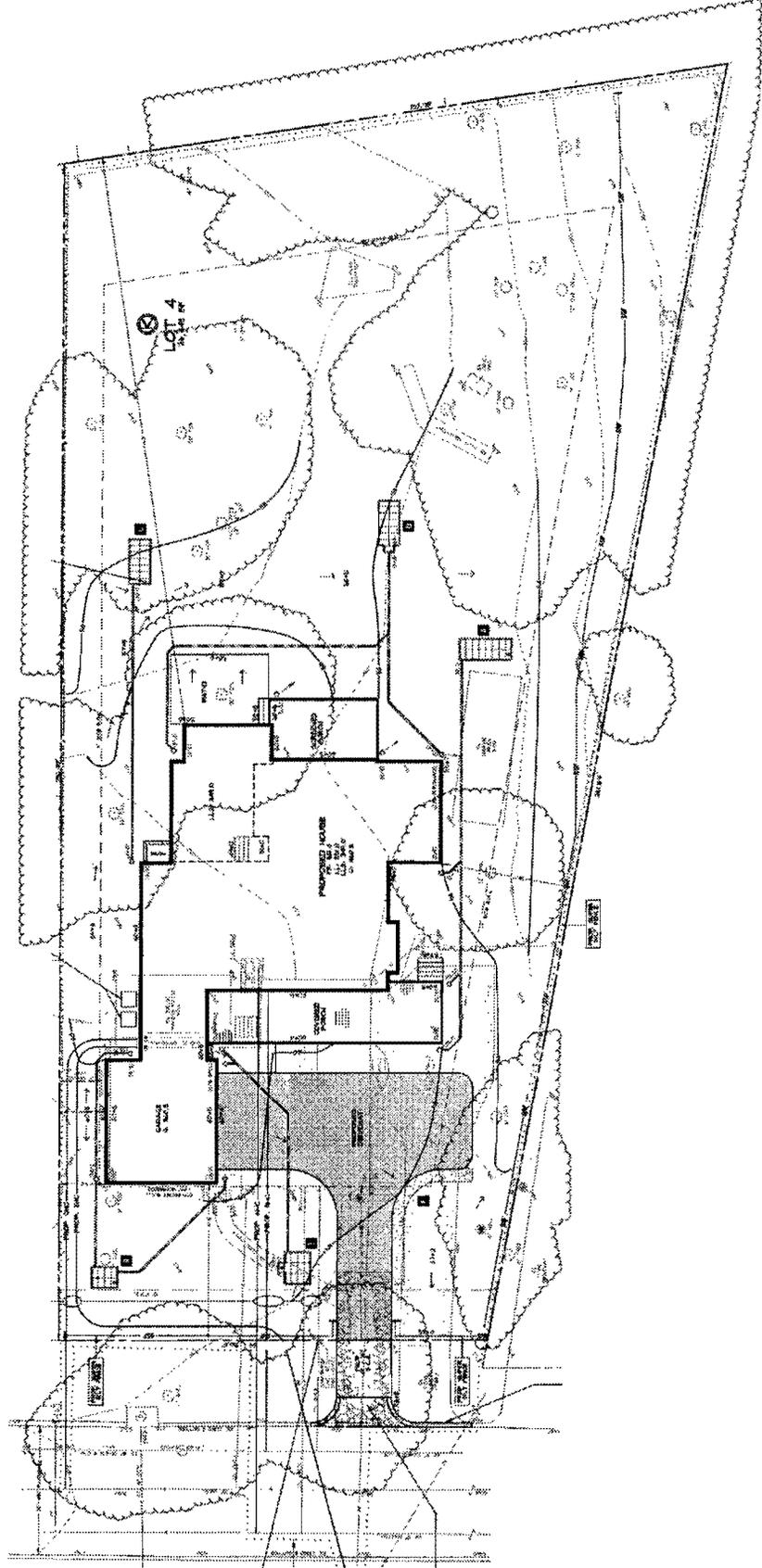
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- Applicant submits plans and supporting data describing area of:
  - LOD
  - Predevelopment canopy
  - Canopy protected (optional)
  - Area for plantings (optional)
- DPS verifies calculations
- Fee is assessed
- DPS enforces LOD as they do now, and verifies certain aspects of tree protection and planting plans (e.g., protection measures are in place, trees have been planted, etc.)



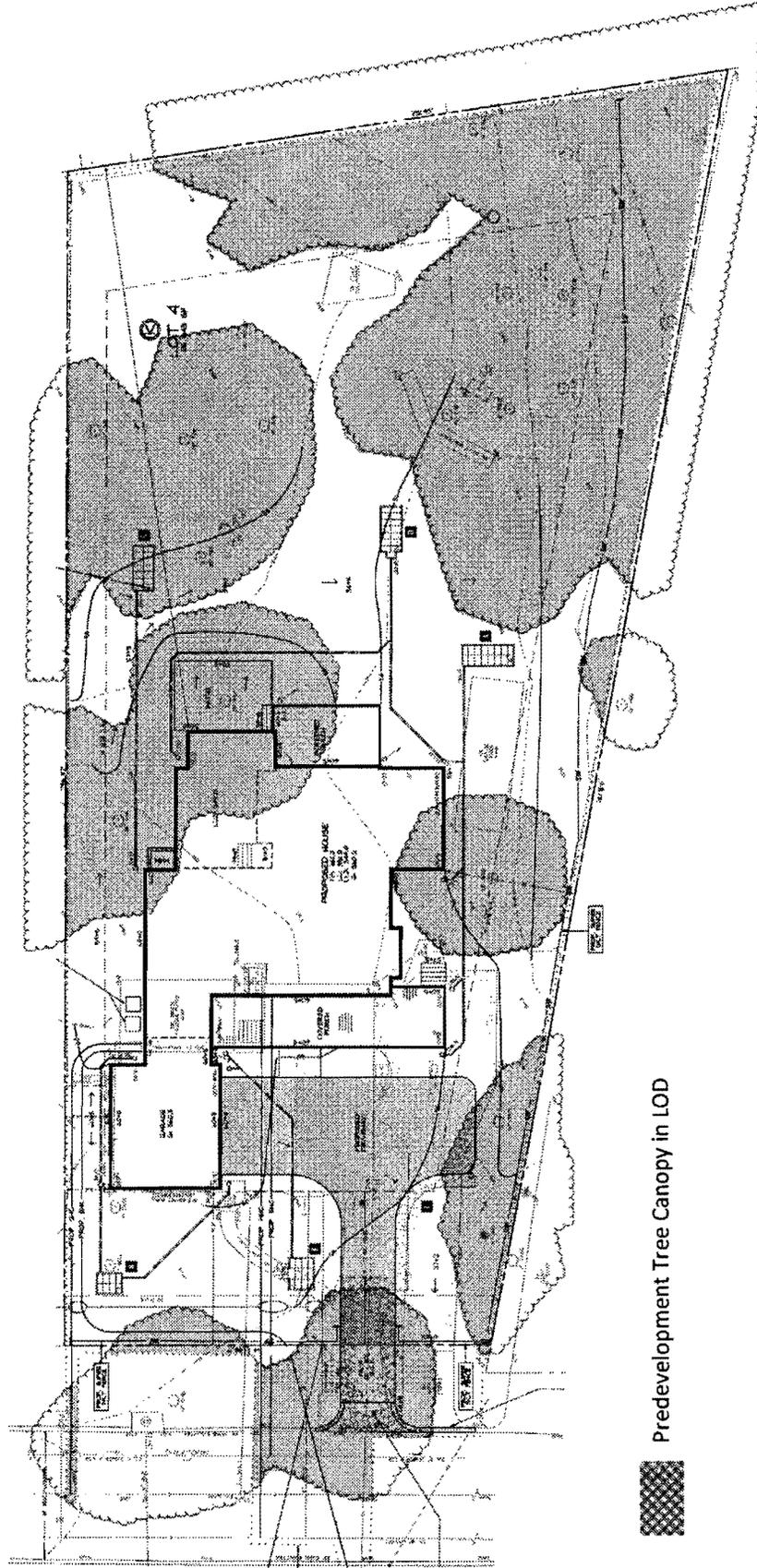
# Site Plan with Tree Canopy Delineation

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# Site Plan with Tree Canopy Delineation

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# Data Table

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Area of Lot (sq. ft.)	26,694
Area of LOD (sq. ft.)	27,929
Canopy within LOD (sq. ft.)	14,870

# Calculation of Mitigation Fee

---

	Square Feet	Acres
Canopy within LOD	14,870	0.34
Less Canopy Protected		0.00
Less Canopy Planted x 0.25		0.00
Area Requiring Mitigation	14,870	0.34

Incremental Area (sq. ft.)		Increment Fee (\$/sq. ft.)	Mitigation Fee
From	To		
0	2,000	\$0.25	\$500
2,001	4,000	\$0.35	\$700
4,001	6,000	\$0.45	\$900
6,001	8,000	\$0.55	\$1,100
8,001	10,000	\$0.65	\$1,300
10,001	15,000	\$0.75	\$3,653
15,001	20,000	\$0.85	\$0
			\$8,153



## Data Table with Tree Protection Data

---

Area of Lot (sq. ft.)	26,694
Area of LOD (sq. ft.)	27,929
Canopy within LOD (sq. ft.)	14,870
Area of Canopy Protected (sq. ft.)	1,809
Area Requiring Mitigation (sq. ft.)	13,061

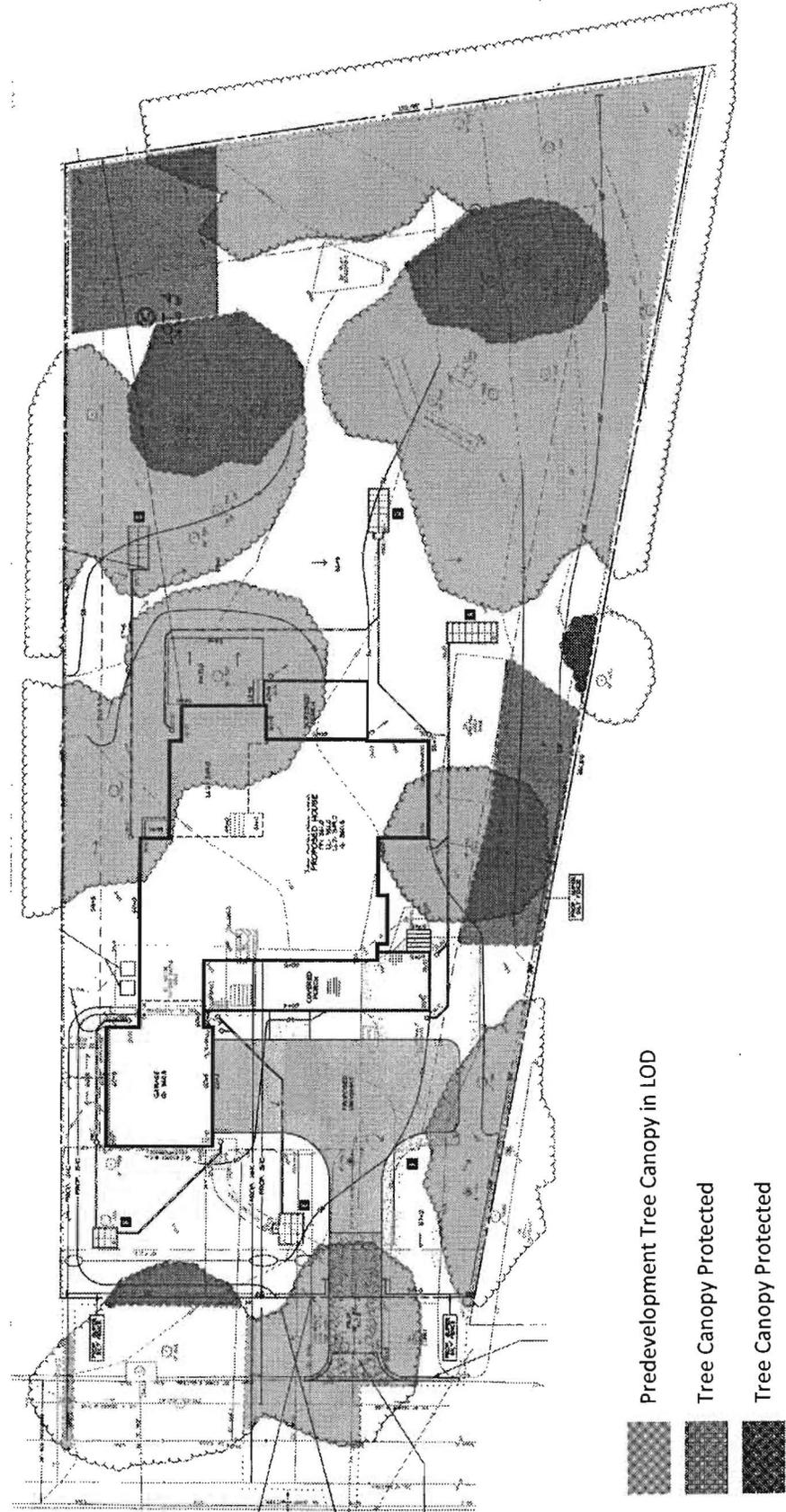
# Calculation of Mitigation Fee

---

	Square Feet	Acres
Canopy within LOD	14,870	0.34
Less Canopy Protected	1,809	0.04
Less Canopy Planted x 0.25		0.00
Area Requiring Mitigation	13,061	0.30

Incremental Area (sq. ft.)		Increment Fee (\$/sq. ft.)	Mitigation Fee
From	To		
0	2,000	\$0.25	\$500
2,001	4,000	\$0.35	\$700
4,001	6,000	\$0.45	\$900
6,001	8,000	\$0.55	\$1,100
8,001	10,000	\$0.65	\$1,300
10,001	15,000	\$0.75	\$2,296
15,001	20,000	\$0.85	\$0
			\$6,796

# Site Plan with Tree Planting Areas



# Determination of Trees to be Planted

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## Credits Factors Specified in Bill

Category of Tree Size	Assumed Area of Canopy at 20 Years	Minimum Open Soil Surface Area (ft <sup>2</sup> )
Small	400	100
Medium	800	200
Large	1,600	400

## Credits for Example Property

Planting Area	Tree Type	Canopy Area
1,170	Large	1,600
	Large	1,600
	Medium	800
860	Large	1,600
	Large	1,600
Total Assumed Canopy Area @ 20 Yrs		7,200
Canopy Credit (Canopy Area x 0.25)		1,800

## Data Table with Tree Protection Data

---

Area of Lot (sq. ft.)	26,694
Area of LOD (sq. ft.)	27,929
Canopy within LOD (sq. ft.)	14,870

Area of Canopy Protected (sq. ft.)	1,809
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Area of Canopy Planted (sq. ft.) x 0.25	1,800
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Area Requiring Mitigation (sq. ft.)	11,261
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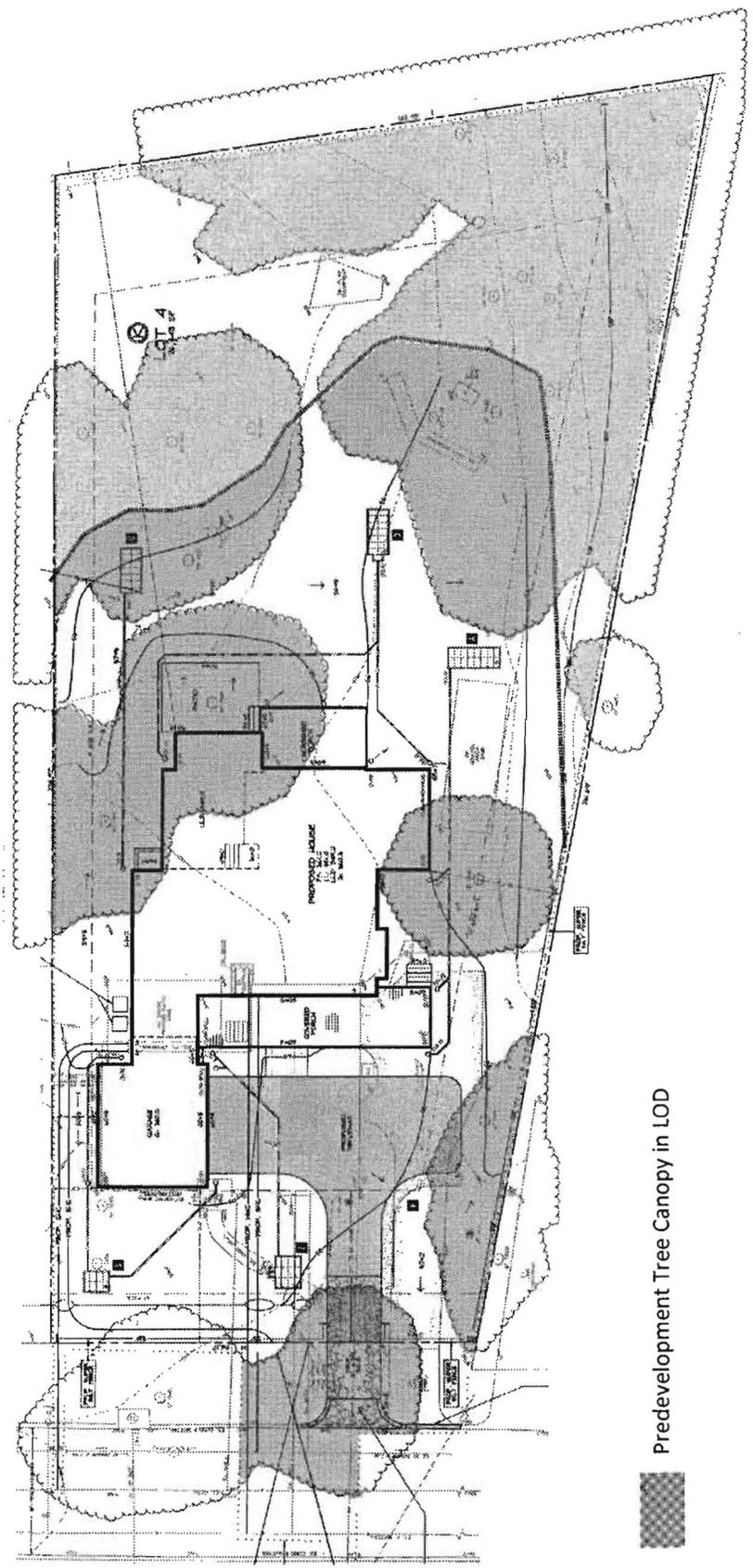
# Calculation of Mitigation Fee

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	Square Feet	Acres
Canopy within LOD	14,870	0.34
Less Canopy Protected	1,809	0.04
Less Canopy Planted x 0.25	1,800	0.04
Area Requiring Mitigation	11,261	0.26

Incremental Area (sq. ft.)		Increment Fee (\$/sq. ft.)	Mitigation Fee
From	To		
0	2,000	\$0.25	\$500
2,001	4,000	\$0.35	\$700
4,001	6,000	\$0.45	\$900
6,001	8,000	\$0.55	\$1,100
8,001	10,000	\$0.65	\$1,300
10,001	15,000	\$0.75	\$946
15,001	20,000	\$0.85	\$0
			\$5,446

# Site Plan with Modified LOD



# Calculation of Mitigation Fee

---

	Square Feet	Acres
Canopy within LOD	7,862	0.18
Less Canopy Protected	0	0.00
Less Canopy Planted x 0.25	0	0.00
Area Requiring Mitigation	7,862	0.18

Incremental Area (sq. ft.)		Increment Fee (\$/sq. ft.)	Mitigation Fee
From	To		
0	2,000	\$0.25	\$500
2,001	4,000	\$0.35	\$700
4,001	6,000	\$0.45	\$900
6,001	8,000	\$0.55	\$1,024
8,001	10,000	\$0.65	\$0
10,001	15,000	\$0.75	\$0
15,001	20,000	\$0.85	\$0
			\$3,124