

MEMORANDUM

Agenda Item # 12

Date: December 6, 2010
To: Planning Commission
From: Mark Donaldson, Executive Director
Subject: [The Knoxville-Knox County Hillside and Ridgetop Protection Plan](#)

RECOMMENDATION: APPROVE WITH RECOMMENDED CHANGES

MPC staff recommends that the planning commission adopt the Knoxville-Knox County Hillside and Ridgetop Protection Plan with the changes that are outlined below. The plan represents amendments to the General Plan and Sector Plans. Following MPC adoption, the plan will be forwarded to City Council and County Commission with recommendations for adoption in order to make the amendments operative. Two resolutions have been prepared for those purposes; one for the City of Knoxville and one for Knox County, recommending adoption of the Knoxville-Knox County Hillside and Ridgetop Protection Plan.

BACKGROUND

The draft, which was prepared and approved by the Joint City-County Task Force on Ridge, Slope and Hillside Development and Protection, was presented to MPC in October and considered at the October 14 and November 11 MPC meetings. While there were various interests speaking in favor of adoption as originally presented, several concerns were expressed by citizens and Commissioners. These included the derivation of the model that was used to depict the Hillside and Ridgetop Protection Area, the use of 15 percent as the starting point in the model, the limitations on office, medium density and commercial uses on 15 to 25 percent slopes, more clarity on incentives, the need for stream buffer language, and discussion of notification on plans and rezonings.

Two workshops were held to discuss and address the various points of concern, culminating in a workshop on December 2, during which staff outlined its responses and recommendations. This included of the shortcomings of conventional steep slope identification from U.S. Geological Survey topographic maps prior to GIS use, an overview of policies that have been in place since the advent of GIS, and improvements in GIS techniques in recent years that have led to more reliable mapping. Tim Kuhn, MPC's GIS Manager, noted in his presentation the advantages in using the recommended model and how it improved accuracy and avoids subjective techniques in identifying hillsides and ridges, including more level rounded areas on ridge crests. He also showed how the model is used in the most common application of MPC's decision making: residential rezoning requests. He demonstrated how the recommended technique improves accuracy in identifying the degrees of slope within an identified area and showed how slightly greater density could be attained in using the model.

In response to the Planning Commission's concerns, changes and additions are recommended by staff (see following pages). Note: **Bold and underlined** are changes to the October draft text (pages are referenced). The last section, Appendix H, which has bold headers and is underlined, is an addition to summarize the recommended incentives.

**RECOMMENDED CHANGES AND ADDITIONS FOR ADOPTION AT THE MPC
DECEMBER 9 MEETING**

1. MEDIUM DENSITY RESIDENTIAL AND OFFICE USES

To recognize differences in a slope slightly more than 15 percent and one closer to 25 percent, strike the text of the second bullet under “Density and Use Intensity” on **page 35** and the cross-referenced paragraph on **page 39**, reading “these uses (i.e., medium and office uses on slopes of 15 to 25 percent) should only be considered when the building footprint does not exceed 5,000 square feet per two acres.” Replace with the following:

Allow consideration of medium density residential and office uses on slopes of 15 to 25 percent with certain provisions to reduce the amount of site disturbance: (1) smaller setbacks should be considered to avoid slope cuts, and (2) these uses should only be considered when the building footprint does not exceed 5,000 square feet per one acre when the slope is closer to 15 percent and graduating to one 5,000 square foot building footprint per two acres when the slope is closer to 25 percent. All new proposals for medium density and office uses should be subject to the approval of a use on review and site plan by the Metropolitan Planning Commission. Conservation measures and other incentives may be used to protect as much of the building site as possible (a summary of incentives is presented in Appendix H).

Also on **page 35**, under “Clearing and Grading”, strike the text that reads, “When a 5,000 square foot building footprint for a medium density residential or office building is considered in extensive areas of 15 to 25 percent slopes (two acres or more), clearing and grading should not exceed 50 percent of the area in that slope group that is within that parcel.”

Replace with: **In areas of 15 to 25 percent slopes, clearing should not exceed 50 percent of the area in that slope group (unless the Metropolitan Planning Commission approves a development plan or creates a special district for the property.** (See the following provision).

2. PLAN AMENDMENTS and SPECIAL DISTRICTS FOR OFFICE AND COMMERCIAL USES

Regarding new commercial and larger scale office projects that are proposed for such sites as rounded knolls within reasonable proximity to very adequate infrastructure, the following will be added to the “Zoning and Development Policies” section on **pages 35-36**:

PLAN AMENDMENTS and SPECIAL DISTRICTS FOR OFFICE AND COMMERCIAL USES

Other new office and commercial development may be considered in the Hillside and Ridgetop Protection Area under special circumstances. The following criteria should be considered in evaluating potential projects:

1. The area should be designated in the sector land use plan as office or commercial.

2. In some circumstances, a plan amendment will be necessary. Among the significant criteria that should be considered in making an amendment are:

a. Type of ridge or hillside (see pages 7 and 8; narrow knife-edge ridges are generally not appropriate);

b. The site's proximity to highways, freeways and transit;

c. Traffic carrying capacity for those roads and streets providing access to the site; and

d. The site's location in relation to the City, its Urban Growth Boundary, and the County's Planned Growth Area, especially areas that are particularly suitable as employment centers such as major highway intersections and freeway interchange areas.

3. In creating development plans for such sites, the design team should:

a. Identify and conserve slopes over 25 percent;

b. Use structured parking (preferably underground), especially for buildings taller than three stories, to reduce the area devoted to required off-street parking;

c. Identify the measures to restore mature vegetation and forests that will be cleared due to construction; and

d. Consider measures such as bio-infiltration, lower impact road design, reduced setbacks and other means available as incentives (see Appendix H).

All new proposals should be subject to the approval of a use on review and site plan by the Metropolitan Planning Commission.

3. COMMERCIAL AND INDUSTRIAL USES

The following alternative recognizes the grading and restoration potential on slopes of 15 to 25 percent. Replace the second bullet on **page 36**, reading "Commercial and industrial uses should be prohibited on slopes exceeding 25 percent," with the following:

For commercial projects that extend into 15 to 25 percent slopes, slope restoration and reforestation of cut-and-fill areas should be accomplished to minimize the long term impact to water quality and lessen forest canopy loss in the hillside and ridgetop protection area.

Industrial development is not recommended on hillsides that exceed 15 percent; this criteria has been used in various MPC industrial and business park site identification studies, such as those of 2002 and 2005.

4. STREAM BUFFER PROPOSAL

On **Page 49**, remove the buffer illustration and strike the last sentence of the first paragraph reading, “ In summary, a wider stream buffer should be established when the Hillside and Ridgetop Protection Area is near a stream or river,” and replace with the following:

In the summer of 2010, the U.S. Environmental Protection Agency and, in turn, the Tennessee Department of Environmental Conservation, revised the requirements of the National Pollution Discharge Elimination System (NPDES) to better control runoff and water pollutants in all regions of the country. In Knox County, the new requirements will result in slightly wider stream buffer standards and limitations on land disturbance in relation to development phasing. The County Engineering Department is working with a committee to consider revisions to stormwater regulations that will place the county in compliance with the new NPDES standards. Stream buffering and erosion control are to be addressed in those revisions.

5. APPENDIX H: SUMMARY OF INCENTIVES

Add the following appendix (following **page 76**) to provide a summary of the plan’s proposed incentives and the means to implement them:

APPENDIX H: SUMMARY OF INCENTIVES

Reduced Setbacks and Peripheral Boundaries

In order to reduce slope cuts, provide:

1. Allowances for reduced front yard setbacks for hillside residential, and
2. Consideration of reduced peripheral setback in zones, such as planned commercial, that require use on review approval.

Means to implement the incentive: make an addition to supplementary regulations with references to specific zoning districts.

Reduced Road and Right-of-Way Widths

In order to reduce hillside cuts and create cost savings, reduce:

1. Local road width standard in hillside protection area from 26 feet to 20 feet, and
2. Required right of way from 50 feet to 40 feet (this still allows utilities to either side of pavement).

Means to implement the incentive: make an additional provision in subdivision regulations and cross-reference in supplementary zoning regulations.

Conservation Subdivision Ordinance

In order to set aside forested steep slopes and other natural areas, and provide the means to reduce development costs, develop conservation subdivision regulations that provide:

1. Allowances for smaller lots and reduced setbacks, enabling the establishment of the open space areas,
2. Allowances for reduced road widths, and opportunities for a density bonus, including a 10% bonus for conserving open space in perpetuity and up to an additional 10% bonus for land dedicated for public purposes.

Means to implement the incentive: adopt ordinance (see draft in Appendix F) with appropriate references in zoning and subdivision codes.

Reduced Required Parking

In order to reduce hillside clearing and offer an opportunity for cost savings provide developers the opportunity to reduce parking areas, including:

1. Consideration of minimum and maximum standards, and
2. Reduction in parking stall size (county) from 200 square feet.

An example of a means to reduce parking requirements is a minimum and maximum option (derived from the Technology Corridor Guidelines).

| Land Use | Minimum Number of Spaces Required | Maximum Number of Spaces Allowed |
|---|--|--|
| Restaurant | 7.5 per 1000 sq. ft. of Gross Floor Area | 15 per 1000 sq. ft. of Gross Floor Area |
| Office | 3 per 1000 sq. ft. of Gross Floor Area | 4.5 per 1000 sq. ft. of Gross Floor Area |
| Retail Establishments | 3 per 1000 sq. ft. of Gross Floor Area | 4.5 per 1000 sq. ft. of Gross Floor Area |
| Office Park, Multi-tenant Office Building | 2 per 1000 sq. ft. of Gross Floor Area | 3.5 per 1000 sq. ft. of Gross Floor Area |
| Shopping Center | 2 per 1000 sq. ft. of Gross Floor Area | 3.5 per 1000 sq. ft. of Gross Floor Area |
| Research & Development Facility, Laboratory | 2 per 1000 sq. ft. of Gross Floor Area | 3.5 per 1000 sq. ft. of Gross Floor Area |
| All Other Non-Residential Uses | 2 per 1000 sq. ft. of Gross Floor Area | 3.5 per 1000 sq. ft. of Gross Floor Area |
| Warehousing, with Office Space | 1 per 1000 sq. ft. of Gross Floor Area | 1.5 per 1000 sq. ft. of Gross Floor Area |
| Industrial and Manufacturing | 1 per 1000 sq. ft. of Gross Floor Area | 1.5 per 1000 sq. ft. of Gross Floor Area |
| Hotel, Motel | 1 per Room or Suite | 1.5 per Room or Suite |
| Church or similar place of worship | 1 per 4 seats in Main Worship Area | 1 per 3 seats in Main Worship Area |

** On-street parking spaces may be used to reduce either the minimum number required or the maximum number allowed for off-street parking spaces.*

Means to implement the incentive: make an addition to supplementary regulations