

**Cheltenham Township**  
**Environmental Advisory Council**  
**8230 Old York Road**  
**Elkins Park, PA 19027**

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Monday, June 29, 2009-- Meeting to review development plans for the property known as Asbourne Country Club.

Given that this property is located in an environmentally sensitive area and directly impacts the Tookany Creek, the EAC recommends the following:

1. No allowance for building on and/or any site disturbance within the flood plain.
2. No allowance for building on steep slope areas.
3. Plan as presented is too dense. It is recommended that there be more green space within the developed area that demonstrates better stormwater BMP's such as bio swales, rain gardens, rain barrel and/or other water collection methods with possible water reuse. (The developer could potentially work with TTF Watershed Partnership to create BMP demonstration projects featured on their site.)
4. Encourage no surface runoff using porous sidewalk and parking paving especially in the condo area where there could be a program established to appropriately maintain the porous surfaces.
5. To reduce township water infrastructure consider EPA Watersense labeled fixtures.
6. As recommended in Cheltenham Township's Open Space Plan (2005), we hope that the developer reconsiders a Conservation Easement along the Tookany Creek and Mill Run sections of this property. This easement would protect the flood plain, provide more green space and riparian buffer along the creek, and augment the recreation area along Tookany Creek Parkway. Walking paths could provide connections for potential residents to the existing recreational areas along the Parkway. (Homes within 200 feet of a park, natural area or greenway get an average property value boost of \$16,300 because of their proximity to open land, a study has found. Open areas of 50 acres or more lend increased value of 3 to 4.8 percent to homes up to a half-mile away, the study says. These are the findings of a property value analysis by Embrace Open Space, a program of The Trust for Public Land, a St. Paul-based land conservation advocacy group.)
7. Given the sites proximity to the Parkway and the townships history of removing non native invasive plants and then planting with native trees, shrubs and grasses-- All landscaping should be native plant species, especially to augment work being completed along the creek, and to avoid the need for excess water irrigation, herbicides and pesticides.

Given that the EAC has been working to encourage sustainable development and retrofits within our community, we recommend the following:

1. Consider using Energy Star Target Finder and achieve energy star label for all units and club houses.
2. Consider options for homeowners to consider alternative energy packages such as, solar hot water and PV panels.

3. Reduce heat island effect. Also, here is an excerpt from the LEED manual about reducing Heat Island Effect:

**Requirements**

**OPTION 1**

Provide any combination of the following strategies for 50% of the site hardscape (including roads, sidewalks, courtyards and parking lots):

- Shade (within 5 years of occupancy)
- Paving materials with a Solar Reflectance Index (SRI) of at least 29
- Open grid pavement system

OR

**OPTION 2**

Place a minimum of 50% of parking spaces under cover (defined as underground, under deck, under roof, or under a building). Any roof used to shade or cover parking must have an SRI of at least 29.

**Potential Technologies & Strategies**

Shade constructed surfaces on the site with landscape features and utilize high-reflectance materials for hardscape.

Consider replacing constructed surfaces (i.e. roof, roads, sidewalks, etc.) with vegetated surfaces such as vegetated roofs and open grid paving or specify high-albedo materials to reduce the heat absorption.

The Solar Reflectance Index (SRI) is a measure of the constructed surface's ability to reflect solar heat, as shown by a small temperature rise. It is defined so that a standard black (reflectance 0.05, emittance 0.90) is 0 and a standard white (reflectance 0.80, emittance 0.90) is 100. To calculate the SRI for a given material, obtain the reflectance value and emittance value for the material. SRI is calculated according to ASTM E 1980-01. Reflectance is measured according to ASTM E 903, ASTM E 1918, or ASTM C 1549. Emittance is measured according to ASTM E 408 or ASTM C 1371. Default values for some materials will be available in the LEED for New Construction v2.2 Reference Guide.

**High Albedo Roofing:**

Reduce heat islands (thermal gradient differences between developed and undeveloped areas) to minimize impact on microclimate and human and wildlife habitat.

**Requirements**

**OPTION 1**

Use roofing materials having a Solar Reflectance Index (SRI) equal to or greater than the values in the table below for a minimum of 75% of the roof surface.

OR

**OPTION 2**

Install a vegetated roof for at least 50% of the roof area.

OR

**OPTION 3**

Install high albedo and vegetated roof surfaces that, in combination, meet the following criteria:

$(\text{Area of SRI Roof} / 0.75) + (\text{Area of vegetated roof} / 0.5) \geq \text{Total Roof Area}$

**Potential Technologies & Strategies**

Consider installing high-albedo and vegetated roofs to reduce heat absorption. SRI is calculated according to ASTM E 1980. Reflectance is measured according to ASTM E 903, ASTM E 1918, or ASTM C 1549. Emittance is measured according to ASTM E 408 or ASTM C 1371. Default values will be available in the LEED for New Construction v2.2 Reference Guide. Product information is available from the Cool Roof Rating Council website, at [www.coolroofs.org](http://www.coolroofs.org).

The Solar Reflectance Index (SRI) is a measure of the constructed surface's ability to reflect solar heat, as shown by a small temperature rise. It is defined so that a standard black (reflectance 0.05, emittance 0.90) is 0 and a standard white (reflectance 0.80, emittance 0.90)

4. Use "dark sky" lighting for all exterior lighting. Reference to LEED for dark skies at the development site: Here is the requirement for residential development from the LEED manual

**LZ2 — Low (Residential areas)**

Design exterior lighting so that all site and building mounted luminaries produce a maximum initial luminance value no greater than 0.10 horizontal and vertical foot-candles at the site boundary and no

greater than 0.01 horizontal foot-candles 10 feet beyond the site boundary. Document that no more than 2% of the total initial designed fixture lumens are emitted at an angle of 90 degrees or higher from nadir (straight down). For site boundaries that abut public rights-of-way, light trespass requirements may be met relative to the curb line instead of the site boundary.

5. To reduce vehicular traffic, have a shuttle service to the train station and Elkins Park business districts.
6. Make space available for residents to have a Community gardening area.

Given our nation's economic and environmental condition it is recommended that this development offer the consumer exceptional opportunity to have a small environmental footprint, to improve upon the existing natural amenities on the property, and to save the consumer money in the long run by being as energy efficient as possible. Matrix Development has a chance to work with our forward thinking community to come up with a superior model development. The land they own is unique and beautiful and offers them the prospect of thinking outside the box and developing an environmental master piece worthy of the land they own.

Thank you for this opportunity!  
Submitted by:  
Cheltenham Township's EAC