IN THE NEWS

Conservation News

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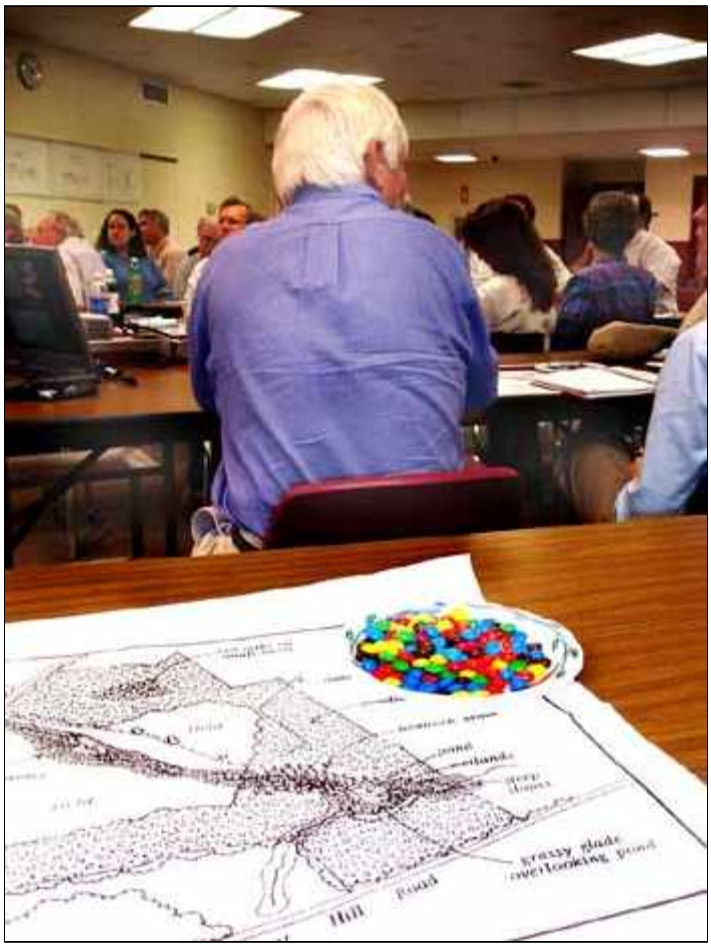
Intelligent design: Green space is priceless in subdivisions that work with nature

by Lynn Norris, prepared for the Northern Neck Newspaper Group

At one point on Tuesday night, four dozen people sat around tables at the Northern Neck Technical Center placidly chewing up and swallowing whole houses like elephants snarfing up peanuts.

No, these edible dwellings weren't wood, brick and plaster. They were red, blue, brown, yellow, green and orange M&Ms, provided as a distinctly palatable part of an exercise in conservation planning.



Colorful houses waiting for development [Photo: PDC staff]

SOME folks ate 20 or 30 or even more houses while pondering how best to site 35 M&Ms on a map of a 70-acre parcel in the foothills of the Berkshire Mountains in western Massachusetts.

I'd like to go on record as having exercised heroic restraint -- I consumed only two homes on my own account. The rest of my share I saved to create a rainbow vista with my partner in which oaks, hemlocks, wetlands, historic stone walls and other elements of the landscape were carefully preserved.

As I recall it, only one other designer in the room put all the blue M&Ms together, etc. In our instance, we dotted our blues in one glade overlooking a large field and the c. 1820 farmhouse, the browns over by the oaks, the oranges... well, you get the picture.

Other planners commingled their colored candies in a distinctly dappled manner — perhaps more fitting for a plan to conserve butterfly habitat in the midst of sassafras trees, coltsfoot, forget-me-nots, swamp candles, coneflowers, coreopsis while planning around grassy glades, small knolls, old ice ponds.

Roads, which we drew in with colored pencils, enhanced the property in a sinuous embrace instead of slashing and gashing it to pieces.

Because we did it this way, the lots on our simulated property showed promise of selling 47% more quickly and for a higher price, and we may well have "spent" about a third less in development costs.

All told, it was quite an eye-opener.

MANAGING DEVELOPMENT

The gathering was organized by the Northern Neck Planning District Commission and funded by a grant from the U.S. Department of Commerce and DEQ's coastal management program.

Seminar leader Randall Arendt is a land planner and author (Rural by Design: Maintaining Small Town Character) who received the American Institute of Architects' Award for Collaborative Achievement in 2005. He provided a number of tools to manage development constructively, while creating a network of protected green space countywide that boosts land values.

Randall Arendt [Photo: PDC staff]

Just up the road, Hanover County has used this technique to set aside 4,400 acres so far for future generations.
Rather than little boxes all made out of ticky tacky looking all the same, Arendt had prepared the crowd for our design task by showing slides of developments across the country which represented the creation of villages full of vivid character.

He is especially not fond of moving dirt around indiscriminately to level a site. Nor will you find him building long, wide, perfectly straight roads or clear-cutting live oaks, knocking over old barns, or filling in springs.

Ironically, restraint in such matters saves a great deal of money (to the tune of hundreds of thousands of dollars on the typical 40-acre tract,) as well as making the whole thing a lot prettier.

And many, many acres that would otherwise have been eaten up by development of larger lots can be saved for ballfields, parks, meadows or farming.

When one developer's wife told him he was going to be spending a lot of time mowing all that green space, Arendt noted, the developer countered by buying "automatic lawnmowers, the four-legged variety." Photos of horses and sheep completed that anecdote.

You could have heard a pin drop as viewers mentally compared Arendt's designs with some of what's going on around here these days.

DISENGAGING DENSITY FROM LOT SIZE

Folks came to the six-hour June 6 meeting from far and near, bringing all sorts of perspectives.

There were developers and realtors, county and regional planners, supervisors, foresters and wildlife conservationists, landscapers, tourism specialists, historians and concerned citizens who have watched with dismay as big farms in their neighborhood were sold for development.
They all shared concerns about sprawl and how development pressures will affect the environment and our quality of life.

“Growth is going to happen, but you can manage it,” Arendt emphasized. He specializes in providing local officials with “creative ways” to update their subdivision and zoning ordinances, allowing them to utilize their comprehensive plans for something besides a hatrack.

“Zoning ordinances work best when density is established directly,” Arendt explains. “There is a mass of confusion about lot size and density. If lot size equals density, the developer fills everything up. You have to break that nexus and treat lot size and density as independent variables.”
This can be done by such means as, for example, “designating density as three units per acre in sewered areas, or two acres per dwelling in unsewered areas, instead of by indirect means (such as through minimum lot sizes like 12,000 square feet).”

Once lot size and density have been severed, Arendt notes, zoning is best served by designating conservation design as a by-right permitted use, because this simplifies applications and mandates that the application process is straight-forward.

By allowing smaller lot sizes with half to two-thirds of a tract set aside for conservation purposes, each homesite is “arguably worth more.” This has been proven time and again to be the case, Arendt’s statistics show.

“Conventional developments can be actively discouraged by re-classifying them as conditional uses, and requiring developers to convince officials that dividing land into just houselots and streets better implements official comprehensive plan policies, such as farmland preservation, habitat conservation, rural viewshed protection, etc.”
Arendt points out that such a demonstration is generally impossible, “as conventional developments are inherently contrary to such planning policies.

“Don’t enable developers to do the ‘same-old, same-old’ for the next 20 years until everything fills up,” he urges.

PROCEDURES

Conservation subdivisions generally include the same overall number of dwellings as those in conventional developments, but the scene is set entirely differently.

The design of conservation subdivisions takes into account each site’s most significant natural and cultural resources, with the open space networks surrounding them being the first element that is drawn onto the plan.

The open space not only includes primary conservation areas (like unbuildable wetlands, flood plains and slops steeper than 20 degrees), but also somewhere between a third to three-quarters of the rest of the land. These secondary conservation areas have been described as “the best of the rest.”

The process of site planning takes each project site in context of surrounding properties within a half-mile radius.
On the plan are included vegetative cover, topography, soils and flood plains.

To this, more details are added to create an existing resources and site analysis map. This provides county decision makers with insights into productive cropland, wildlife habitat meadows, forests and stream valleys, as well as significant trees.

“A tree is not a tree is not a tree,” Arendt paraphrases Gertrude Stein. “Find out where the best trees are and save them. People will pay more for the land. You have to know which trees to hug, and which to let go.”

Arendt concedes that not every tree can be saved, but they should all be mapped and valued when they are of a certain size.

This size he listed as 4-6 inches in diameter for smaller species such as dogwood and redbud, 8-10 inches for medium species such as sassafras, cherry and water beech, 12-14 inches for slow-growing hardwoods (oak, maple, ash) and 15-18 inches for fast growers (tulip poplar, sycamore, conifers).

WALK, WALK, WALK

Walk the property, he urges. Do it over and over. You can’t begin to tell a site’s strengths and needs without a series of such intimate encounters.

“There’s only so much you can tell from two-dimensional drawings incorporating black and white lines. It’s like hiring on the basis of a résumé without a personal interview. You need to look a person in the eye.”

Not only should developers be all over their land, finding out its best assets, so should county planners and supervisors. “If you don’t like ticks or chiggers and are afraid of snakes,” Arendt quips, “you need to get a different job.”

He waxes eloquent about bloodroot, trillium, dogtooth violets and trout lilies, wields a camera lens like an artist’s paintbrush to capture shadowplay on flower parts. Then he points to a grouping of hackberry trees or sycamores in which, “maybe, not a single tree screams ‘save me!’” But with pruning, an elegant colonnade emerges.

TALK, TALK, TALK

Abutting property owners should be encouraged to express themselves from the sketch phase onward, before tens of thousands of dollars have been invested.

“By including them early on when their suggestions can be taken seriously, you’ll often find out they know quite a lot. They may encourage you to shift a design element a little to avoid a hidden stream or spring.”

An aerial photograph showing a darker spot leads to questions. “Is that wet?”

The answer could be, “Not now. But at certain seasons of the year, 500 snow geese land there. It’s a good place to put a park.”

The site walk should actually be treated like a public meeting or workshop, in which a collaborative approach can cut right to the chase.

“One developer told me we’d just accomplished four months of work in four hours,” Arendt says. “My thought is, why drag it out for four months? In an open discussion at the beginning, everyone gets to ask questions and receive answers.”

After mapping out the primary and secondary conservation areas, the next step is to locate house sites that are livable, marketable and valuable. A landscape architect and physical planner should lead the team for these stages, collaborating with a civil engineer.

Workshop participants discuss options [Photo: PDC staff]

Streets and trails come next, and then the lot lines are drawn in.

Roads are “there for convenience, not driving the design,” Arendt posits.

He strongly advises coming to the county with a sketch plan rather than a much more expensive preliminary plan. A preliminary plan often costs an arm and a leg and “goes eight and a half of the whole nine yards — so far that the developer and his engineers don’t want to back down or make changes.

“It’s even more ridiculous than going on a first date and bringing a diamond ring,” he snorts. “A preliminary plan with engineering detail added in costs, in fact, as much as six or eight diamond rings!”

ROAD BUILDING

Road standards as they currently exist in Virginia raise Arendt’s hackles big time, especially because localities are rightly so concerned about getting subdivision roads taken into the state highway system, and turning radiuses, etc. are constantly being cranked up by VDOT.

"It's really bizarre to have the highway department running your subdivision ordinance," Arendt says. "It's like having them running the school system."

He'd like to see VDOT adhere to narrower national standards recommended for residential streets in a book published by the American Association of State Highway Transportation Officials. An appendix conveys the ideas of the American Society of Civil Engineers and the Institute of Transportation Engineering. These less strenuous rules are ironically "currently considered fine for highways but not so fine for local roads."

Sadly, he feels, wider streets are "actually more dangerous because people travel faster on them. And narrower streets do not keep firemen from getting through.

"This is not Alaska, where instead of getting a tax bill, people get a refund check. We don't have money to burn. If roads were 20 feet wide instead of 30 feet, there would be 50% less local funding required to repave them every 10 years. Macadam is petroleum based and the question is not if, but when we will run out."

OTHER POINTS

•Conservation easements run with deeds and they can be watchdogged by the Virginia Outdoors Foundation, local landtrusts or soil and water conservation districts. Land on which conservation easements have been placed can still be farmed.

•Arendt favors newer sewage treatments methodologies that utilize spray or drip irrigation from storage lagoons, rather than discharging overboard.

•Maryland requires developers to include a certain number of affordable housing units in their subdivisions so teachers, firemen, daycare employees and other service providers can find homes. This practice has been incorporated in the zoning ordinances of two counties in northern Virginia.

•A Gloucester planner warned that his county had adopted a progressive cluster ordinance but left out some important controls. "Take a close look at your safeguards to make sure you're really getting what you want," he told the crowd. One such safeguard is the concept of keeping subdivisions density-neutral, which protects against greater relative density than is allowed in the comprehensive plan. Alternative drainfields and wells also "blew the doors off in areas which are not really suitable for development," the planner noted. And they didn't include limits on what developers would be allowed to do with the open space, or specify that the 20% slopes, etc. do not merit extra conservation space credit as they couldn't have been built on anyway.

READING LIST

www.landchoices.org
www.greenerprospects.com
www.natlands.org
www.mnland.org/prog-consplanning.html