



Designing Traditional Neighborhoods Around Natural Features

by Randall Arendt

Done properly (i.e., with a substantial proportion of the unconstrained land set aside as permanent open space in squares, parks, greenways, and greenbelts), new villages and hamlets can be seen as an exciting, greener subset of "conservation design." Developer interest in creating more compact neighborhoods should be boosted by results from a recent survey by Fannie Mae, in which 75 percent of respondents said they believe living in a good neighborhood is more important than living in a good house. With the graying of the baby-boom generation, when every eight seconds someone in the United States turns 50, the market for homes on smaller lots, with plenty of community open space, is bound to grow significantly. There is the need for more livable neighborhoods in more complete communities, where open spaces are more than just the unbuildable land, plus an obligatory green or ball field.



Figure 1. Designing across landscape features

On the surface nothing appears to be wrong with this picture, until one examines Figure 2, where it is evident that the first designer completely ignored the preexisting pattern of trees and hedgerows.

When asked about the difference between my approach and that of my colleagues who are more active than I am in the New Urbanist movement, I typically respond that we are both very interested in promoting more compact forms of development. Whereas the tighter development pattern seems to be the principal goal of many New Urbanists (with land conservation being a felicitous byproduct), land protection is the main point for me and other landscape architects and conservation planners. The village approach is a means to achieving that end. This difference is also reflected in the ways that we generally approach the design challenge, with architects tending to place more emphasis on layout and streetscape issues and landscape architects and conservation planners assigning greater weight to a variety of sometimes subtle landscape features that we see as

opportunities for shaping the ultimate design. The proponents of each perspective, however, have much to offer and learn from each other.



Figure 2. Designing around landscape features

Rural landscape features can either be designed across or designed around. Those who wish to take advantage of the natural landscaping and buffering opportunities offered by existing hedgerows can also win the respect of community residents who sometimes take such features quite seriously.

The idea of giving precedence to existing site features when they pose no real constraints is rooted deeply in the Garden City planning tradition. In a 1911 lecture to the Chicago Club, Raymond Unwin told the audience, "We began to realize that city planning must be a combination of the *art of man* and the *beauty of nature*.... We therefore preserved the trees and the hedgerows, so that the sites would not look so bare from the beginning." Excellent advice both then and now, but more's the pity that nearly 90 years later this should still be a novel idea to the majority of practicing site designers in this country.

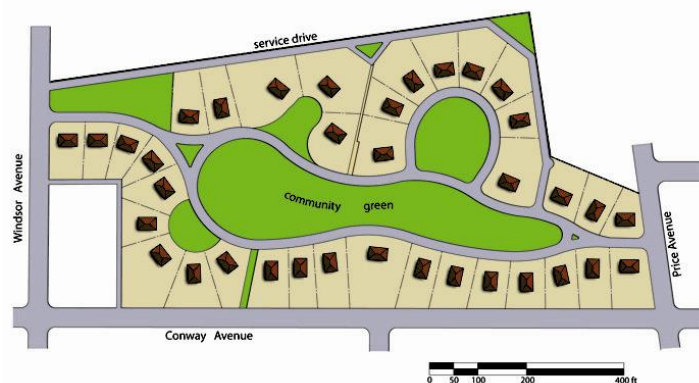


Figure 3. Central parkland

Narbrook Park in Narberth, Pennsylvania, is a period piece, blending substantial open space with graceful informality. Several homes front directly onto open space with no intervening street. In the photograph, the access street that rings the central common is only 16 feet wide and was laid out with graceful, serpentine "reverse curves" so loathed by engineers who connect every curve with a straight tangent. Its width has been adequate for all its 80 years, partly because on-street parking demand is minimal due to its "single-loaded" nature, with lots on one side only. Likewise, open drainage systems have consistently performed well (despite the conventional wisdom that curbs are needed in neighborhoods with modest lots), as the parkland serves as an informal stormwater area during severe cloudbursts.

The pair of drawings in Figures 1 and 2 show two different ways of laying out a development in a field behind the old village of Sandy Spring, Maryland. One team of architects produced a design that appropriately extended the traditional pattern of interconnected streets and blocks, but in their desire to faithfully execute a layout worthy of a nineteenth century surveyor the designers repeated the mistakes of the past and pushed the streets out across the fields in an indiscriminate manner, irrespective of the trees and hedgerows that comprise important features of the cultural landscape. According to the developer, townspeople who knew the site very well were not impressed and described the layout as too rigid and urban. When the developer asked me to try my hand and produce a more "rural" design, I simply fit the elements into the three "outdoor rooms" created by the tree lines, and introduced at least one small open space into the center of each of those "rooms." In addition, the streets were deliberately curved in two of these instances so that the traveler's eye would rest upon the central greens. This design principle is also illustrated in Figure 4, which depicts a Virginia site for which I was asked to prepare a concept plan.

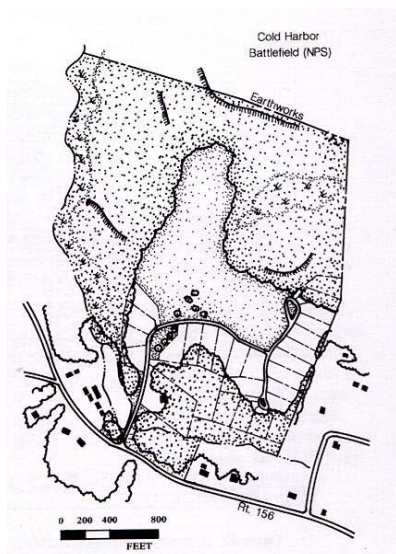


Figure 4. Designing around historic landscape elements

Applying the principles of conservation design to this subdivision near Richmond in Hanover County, Virginia, enabled me to avoid impacting any of this property's military earthworks, which had been among many such defenses hurriedly dug to defend the Confederate capitol from Union troops. The developer scored extra points with local officials and the National Park Service by donating most of the project open space to the Cold Harbor Unit of the Richmond National Battlefield Park, directly adjacent to the north.

On another part of this village extension site illustrated in Figure 2, meadows, greens, and large freestanding trees were deliberately aligned with the sightlines of people driving or walking through the development. The sense of openness is also greatly enhanced through the liberal use of "single-loaded" streets, not only around greens and commons but also along part of the perimeter where the development borders large fields (Figure 5).

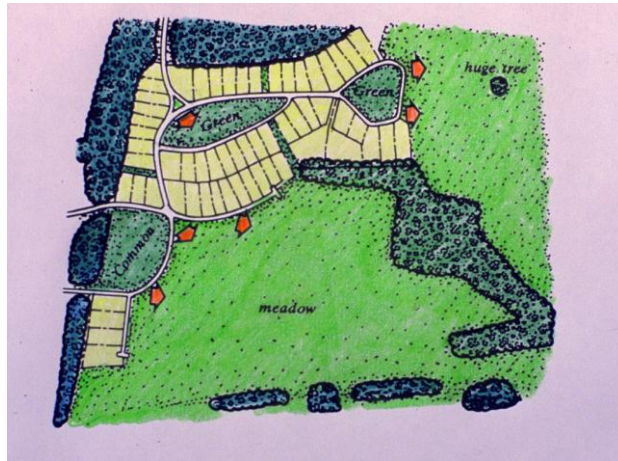


Figure 5. Natural features as terminal vistas

When streets are aligned so that the terminal vista is of open space features, either man-made (greens, commons) or natural (meadows, large trees in the distance, etc.), a sense of spaciousness is introduced as counterpoint to the enclosed feeling created by parallel rows of buildings on small lots.

A similar approach was taken by Richard Calderon during his tenure at the Loudoun County Planning Department, in which capacity he prepared the design in Figure 6 to help a developer meet new zoning regulations governing village design. This example combines elements of earlier ones, with the layout following the pattern of hedgerows, and with woodlands and large "conservancy lots" that buffer the village grouping from view of the public road bounding one side of the site. The tree line was also used as an ordering element for the new access street serving the development, giving it an immediate and traditional sense of time and place.



Figure 6. Hedgerows as layout determinants

This layout respectfully follows the existing pattern of hedgerows and woodlands, giving structure to the street system, with large conservancy lots protecting the public viewshed from the main road bordering the property.

In the dense second-growth woodland his father had bought for development at Tioga New Town near Gainesville, Florida, site designer Luis Diaz noticed what appeared to be continuous lines of larger trees among the rest. Further analysis revealed one of these lines to be the original hedgerow separating former fields now fully grown back into forest. It was discovered that the other feature, a double row of trees, had lined the lane leading to the site of the farmhouse, long since vanished. For Diaz, these revelations spurred ideas to lay out a new street along the first line to generate instant

shade and a feeling of permanence to the new streetscape and also to create a formal greenway "esplanade" between the pair of parallel treelines (Figure 7).



Figure 7. The esplanade

When it was purchased for development, this area was entirely wooded. However, the perceptive eye of designer-developer Luis Diaz noticed two lines of trees larger than their neighbors, and research confirmed that they had originally lined a country lane on the property. Clearing away the smaller trees left the original tree rows intact, and gave Diaz the idea of using this remnant landscape feature to frame a walkway connecting the community meetinghouse and park with the retail district at his new Town of Tioga, near Gainesville, Florida.

At New Point, near Beaufort, SC, New Urbanist developer Vince Graham designed his streets around existing trees, creating traffic-calming central islands in the process (Figure 8).

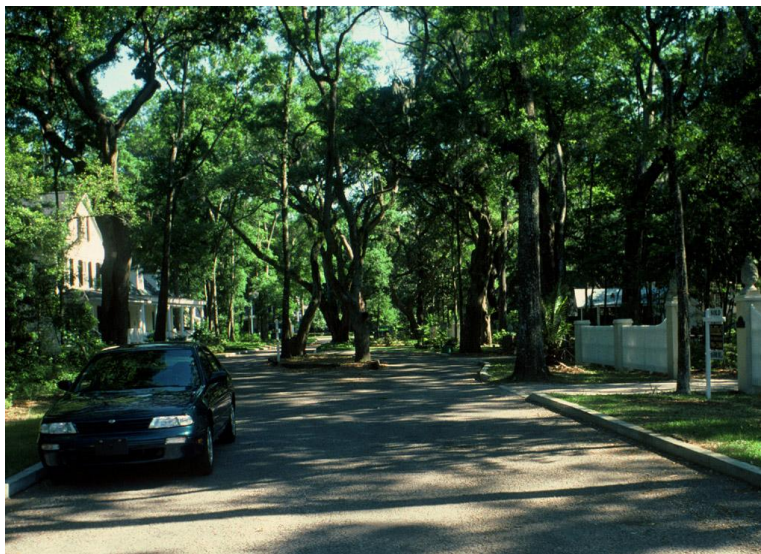


Figure 8. Hedgerow trees as street trees.

The large trees lining the sidewalk at Tioga are from an old hedgerow on the site, illustrating the "instant landscaping" effect that can be achieved when development is designed carefully around existing trees.

Randall Arendt is an author, lecturer, educator, and site designer specializing in land conservation through more compact development design. Propelled by outrage at the lamentable state of land-use planning in many parts of this country, he is the author of numerous articles and four volumes on this subject, has designed conservation subdivisions in 24 states, and has lectured in 47 states and seven Canadian provinces. Randall is an Honorary Member of the American Society of Landscape Architects, and a Fellow of the Royal Town Planning Institute in

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