

by Randall Arendt

[See slideshow at end of introduction]

If you have ever driven by a development site both before and after construction, you will probably have noticed how drastically the pre-existing landscape—both natural and cultural—has been altered, sometimes almost beyond recognition. Very typically, woodlands have been felled, hedgerows have been pulled up and cleared away, the natural contours of the terrain have been ironed out into dead-flat building platforms, drainages have been relocated, old houses and barns have been razed.



Usually not as obvious is the lack of necessity for many of those changes, which forever impoverish the community by permanently erasing special features that are often impossible to replace or replicate. The loss of habitat, familiar landscapes, and character-defining buildings are often the result of indifference by developers and their engineering consultants, and ignorance of practical alternatives by local planning staffs and officials who approve such proposals, based on outdated zoning and subdivision codes which legitimize this kind of corporate and municipal misbehavior.

Much has been written concerning practical alternatives to standard "cookie-cutter" development patterns, particularly those involving residential subdivisions, which alter far more acreage in any given year than any other land-use type.

Readers of this magazine may recall an [article that appeared in Issue No. 7](#) in 2000 ("Designing Traditional Neighborhoods Around Natural Features"), where this theme was sounded.

In that piece, I quoted Raymond Unwin, one of the great leaders of the Garden City movement, who in 1911 told members of the Chicago Club, "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 the site would not look so bare from the beginning."

The inspired notion of designing the city as a garden had sadly faded by the late 1920s, but many of the underlying premises of the movement were revived and greatly expanded by perceptive landscape architects several generations later, most notably by Ian McHarg, whose seminal volume [Design with Nature](#) brought the nascent idea of ecological planning into sharper focus for many students and practitioners of his era. Many of those ideas have, in turn, evolved into the art and practice of "conservation planning," together with its implementation tools: conservation zoning and conservation subdivision design.



At the heart of this approach is the idea that the residential subdivision design process can be reformed so that such developments become a major tool for achieving a community's conservation objectives, at no additional cost to developers. In fact, studies have shown they save money on expensive site grading and street construction, and that the lots tend to sell more quickly and at premium prices.

These concepts have been the subject of several books—such as *Growing Greener* and *Conservation Design for Subdivisions*—in which the landscape approach to site design has been simplified into a four-step design process easily understandable by lay members of local planning boards, not to mention developers and their engineers. The critically-important first step consists of inventorying resources worth designing around and preserving, either because they represent daunting obstacles to development (such as wetlands, floodplains, and steep slopes), or because they encompass special value-adding natural or cultural features that are extremely vulnerable because they are NOT located in unbuildable areas.

The second distinguishing feature of this approach is its commitment to pre-identifying and preserving a community-wide network of conservation lands, "linked landscapes", as it were, not merely a hit-or-miss collection of isolated green pockets dotted here and there around the township or county.

The following narrative slideshow presents two dozen images capturing different site features that have been inventoried, evaluated, designed around, and saved through this common-sense approach to land development. Half are located in conservation subdivisions that I have personally designed in various landscapes and regions, ranging from New England to the Upper Midwest, and from Texas to Florida. These photos are divided into four broad categories: Cultural Features, Natural Features, Restoration Examples, and Community Lands & Commercial Applications. As the pictures themselves are each worth a proverbial thousand words, captions have been limited to a brief statement or two providing background for the reader.

Further Reading: The central tenets of conservation planning and subdivision design are described and illustrated in several free downloadable publications posted on [www.greenerprospects.com](http://www.greenerprospects.com).

**Slideshow Follows**

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## Sideshow of 25 cultural, natural, and restoration features of conservation subdivision design

### Cultural Features



#### Trace

##### Lakeland Green, Lakeland, Tennessee

This ancient woodland footpath, trodden by Native Americans well before the appearance of European settlers, was encountered on a large property in western Tennessee during a site walk I conducted with the landowner's son as part of a five-day charrette held by Duany Plater-Zyberk & Company (DPZ) staff, who had asked me to serve as their "designated walker" and their "eyes on nature." Many features were identified and located during this extensive perambulation, and were very easily "designed around" with the flexibility that smaller lots give site designers, be they New Urbanists or rural conservationists.

*Photo by Randall Arendt.*



#### Stone Wall

##### Brown's Farm, Kingston, Rhode Island

Retaining stone walls in the New England landscape would seem to be basic, but it is a true rarity in subdivision design in that region, where surveyors' convenience and rigid codes regularly combine to impose insensitive layouts upon the land. This particular example stands out for its creativity in lying within a long, broad central green, akin to a boulevard median, located in a cul-de-sac setting where the looping street neatly wraps around it. Another bonus: parts of this wide median/green include rain gardens to encourage stormwater infiltration and aquifer recharge.

*Photo by Randall Arendt.*



#### **Cellarhole**

#### **Chapman's Woods, Willington, Connecticut**

This stone artifact anchors the conservation lands to its farmstead origins in the 18th century. The nearby circular well exhibits considerable masonry skill, and will be covered with an iron grate to reduce liability concerns. We discovered this quite by accident during a three-hour site walk, attended by numerous Town officials—which is the preferred way to begin a design process, a sort of "charrette-on-foot."

*Photo by Randall Arendt.*



#### **Earthworks**

#### **The Fields at Cold Harbor, Hanover County, Virginia**

Many farms near Southern cities contain earthen fortifications hurriedly dug and heaped up by Union or Confederate forces. Unless they are located within a national military park, however, chances are they are completely unprotected. When helping Hanover County, Virginia write new zoning regulations to encourage rural conservation subdivisions, I was asked by a developer to draw up a concept plan for property adjoining the Cold Harbor Battlefield, preserving the earthworks, and enabling him to offer the extensive conservation land to the National Park Service. This is one of twenty such developments created since that code was adopted seven years ago.

*Update:* I recently learned that conservation subdivisions in Hanover County have already preserved some 4,400 acres of land during the eight years since I helped staff write the current ordinance.



### Ditch and Hedgerows

#### **West Haven, Franklin, Tennessee**

This drainage ditch, bordered by two lines of scraggly trees separating open fields, was the only item of visual interest in an otherwise featureless landscape. Very much to their credit, New Urbanist designers at DPZ recognized that, with a bit of editing and pruning, these trees could be transformed into something much more than the sum of their paltry parts. This ensemble now serves as the central median in one of the boulevards leading into the heart of this new traditional neighborhood.

*Photo by Randall Arendt.*



### Log Buildings

#### **Chimney Rock, Flower Mound, Texas**

Part of preserving "the view from the road" lies in designating conservation areas within the public viewshed. A very old log building and the chimney of the original farmhouse are all that remain to tie us back into this neighborhood's long history. I preserved another part of the frontage by creating a large ten-acre "conservancy lot," essentially non-common open space adding to the developer's bottom line, while relieving the home association of land they would otherwise be obligated to manage.

*Photo by Randall Arendt.*



#### Farmhouse

#### Grande Park South, Plainfield, Illinois

This plain old farmhouse epitomizes the simplicity of much of the vernacular architecture in Kendall County, south of Chicago. Not fancy but in good solid condition, this structure sits atop a low ridge, crowning the horizon, highly visible from the country road that passes below. It is being sold with the condition that it be restored in a historically appropriate manner. Convincing my client that this was the right thing to do required several conversations, but he eventually saw the merit of sparing the structure and turning a liability into an asset.

*Photo by Randall Arendt*

## Natural Features



#### Trout Lily

#### Montgomery Farm, Allen, Texas

This delicate wildflower, sometimes also known as dogtooth violet (*Erythronium americanum*), derives its more common name from the speckles on its leaves, not unlike the distinctive pattern seen on a trout's body. This specimen springs from the floor of a natural woodland garden that has been carefully preserved in the heart of a 500-acre development north of Dallas. Members of the landowning family that hired me to assist with their planning process joined me on the walk and readily endorsed the suggestion that this forest remnant be spared the bulldozer's blade.

*Photo by Randall Arendt.*



### Trillium

#### Mendon Green, Mendon, New York

Most woodland wildflowers such as the trillium (*Trillium grandifolium*) blossom in late spring, before tree foliage emerges, blocks the sunlight, and shades the forest floor. With three leaves and three large white petals, this plant has long been associated with the Trinity and the Christian faith. This property in upstate New York is blessed with extensive woodlands, all of which were saved by locating the development on the previously disturbed areas devoid of ecological significance: the farmland.

*Photo by Randall Arendt.*

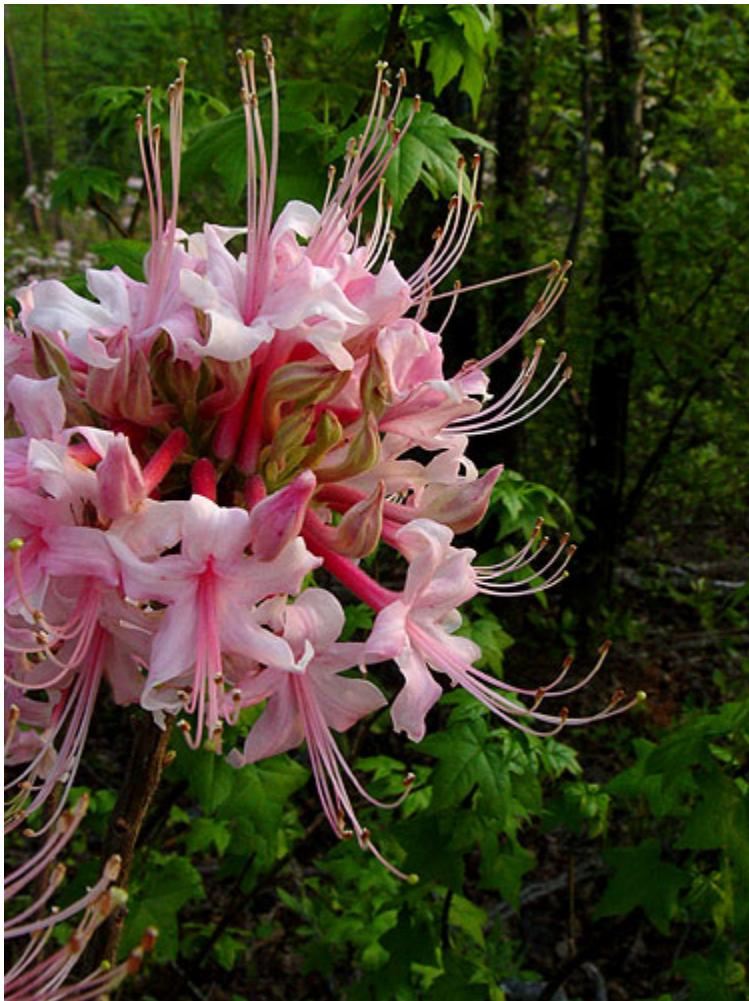


### Florida Pinks

#### King Grove, Lake County, Florida

When my landowner client pointed out a patch of pinks (*Sabatia angularis*) on his property, gracing a meadow behind his house, the exquisite beauty of the plant's structure was not immediately evident, but became clear when viewed at close range. When visiting meadows and woodlands where choices exist regarding the location of development areas and conservation areas, landowner input can be critically important, particularly during seasons when such species are not in bloom.

*Photo by Randall Arendt.*



### Azaleas

#### **The Ridge at Chukker Creek, Aiken, South Carolina**

Stands of wild azalea dot a client's property in western South Carolina, but fortunately were easily avoided because they covered a relatively small percentage of her acreage. On another property in New England, where about half the land was vegetated with mountain laurel, a color aerial photo taken just after snowfall helped enormously in identifying the stands and designing around the most significant of them.

*Photo by Randall Arendt.*



### Vernal Pools

#### **The Preserve, Old Saybrook, Connecticut**

These shallow woodland ponds are significant precisely because they are ephemeral, appearing only during the wetter months. As they are typically bone-dry by midsummer, they do not support a fish population, meaning that the larvae and young of many woodland amphibians (such as spotted salamander, spadefoot toad, and wood frog) are safe from piscine predators. However, such features are not even on the screen of most code writers, and are frequently graded over in total ignorance of their importance. At this project, numerous pools were identified and prioritized according to the richness and diversity of their amphibian life, as estimated by a specialist in this field.

*Photo by Randall Arendt.*



#### Grove of Live Oaks

#### The Park at Wolf Branch Oaks, Mt. Dora, Florida

A dentist attending one of my conservation design workshops asked me to look at a property he had purchased for investment purposes, but which he did not wish to wreck in the pursuit of money. An aerial photo enabled me to spot the greatest concentrations of live oaks in his cow pasture and to design around them easily, creating a 13-acre park in the center of his 80-acre rural neighborhood.

*Photo by Randall Arendt.*



#### Wiregrass and Longleaf Pine Habitat

#### Centerville, Tallahassee, Florida

Consultation with local experts in Florida panhandle ecology informed my decision as to which parts of this property to designate as a preserve, including habitat for gopher tortoises. Money really does grow on trees, as 86 of the first 87 lots sold on the first day of offering, a record for developers in Leon County.

*Photo by Randall Arendt.*



### Saguaro Cactus Habitat Fairfield, Tucson, Arizona

Xeriscaping principles limited the size of lots in this 20-year-old subdivision, and extensive areas of native saguaro cactus were the beneficiaries. In this example, local regulations did not cause the good design, but at least did not impede it either, as is often the case with conventional zoning codes.

*Photo by Randall Arendt.*



### Wetlands

#### Tryon Farm, Michigan City, Indiana

Much of the Midwest was historically dotted with "prairie potholes," providing welcome rest stops for migrating waterfowl. But most of these natural watering-holes were tiled and drained as farmers gradually extended their areas of cultivation. Experts tell us that the majority of wetlands loss in this country has occurred not in coastal locations, but rather in interior areas such as this. Recognizing the ease with which such water features could be brought back into existence, developers Eve and Ed Noonan re-created several ponds where Mother Nature had intended them to be, adding something of beauty (and wildlife value) to this new rural neighborhood as part of an overall sales and marketing strategy.



#### Trout Fishery

#### The Ranch at Roaring Fork, Garfield County, Colorado

With technical advice from Trout Unlimited, a superb fishery, which had been utterly destroyed by generations of ranching, was restored by a developer who had first thought of—and rejected—the boring notion of creating a golf course as an amenity or "draw." Where cattle once drank, muddied the water with their huge hooves, and relieved themselves, trout now thrive, attracting buyers who value—and pay more for the privilege of living near—this special natural resource.

*Photo by Randall Arendt.*



#### Prairie Flowers

#### Hawksnest, Delafield, Wisconsin

Large sections of a fifteen-acre central green have become a natural garden, planted with native grasses and wildflowers by Siepmann Realty, arguably the nation's leading developer of conservation subdivisions. I took this photo three years after the meadow had been planted, truly a riot of color, and a haven for honeybees and butterflies, during high summer.

*Photo by Randall Arendt*



#### Prescribed Burns

#### Prairie Crossing, Grayslake, Illinois

An essential part of proper prairie management is the annual controlled burn, illustrated here. Residents are advised beforehand to make plans to be away on the burn date, if they have asthma or other respiratory ailments. However, for the majority, these burns provide an enjoyable educational experience.

*Photo by Michael Sands.*



#### Plant Nursery

#### Cloverdale Farm, Lake Elmo, Minnesota

Developer Robert Engstrom has created plant nurseries of his own to provide native grasses, wildflowers, and trees to his nearby projects, north of St. Paul. This nursery supplies needs for several of his nearby conservation subdivisions, including the one where this photo was taken and another directly across the street.

*Photo by Robert Engstrom.*

## Community Lands and Commercial Applications



### Community Gardens and CSA: Berrying Prairie Crossing, Grayslake, Illinois

Community gardens with individual allotments for each family are a popular tradition in Europe, and also in some new conservation subdivisions in our own country. Here children are seen berrying at Prairie Crossing's organic berry farm, in Grayslake, Illinois, where the berries are growing through a rye cover crop.

*Photo courtesy Prairie Crossing*



### Community Gardens and CSA: Farmstand Fields of St. Croix, Lake Elmo, Minnesota

A variation on this theme is the concept of community-supported agriculture (CSA), where a farming couple typically leases land from a home association and raises a variety of fresh vegetables, berries, herbs, and flowers, to be picked (or cut) by CSA members, who pay an annual membership fee for the privilege. Some parents bring their children to these "Pick-Your-Own" operations, turning it into a family activity, while others prefer to simply stop by the farm stand and collect their weekly share of the produce.

*Photo by Robert Engstrom.*



#### Vineyard

#### Village Homes, Davis, California

Add viniculture to the list of agricultural activities that can be accommodated in conservation subdivisions. This one, built compactly at 4.5 du/acre overall, saved land for the developers, Michael and Judy Corbett, to establish a small vineyard.

*Photo by Randall Arendt.*



#### Deer Farming

#### North Oaks, Minnesota

Herds of deer roam large fenced areas in this conservation subdivision created by clients Doug and Mari Harpur, north of Minneapolis. Bred primarily for their antlers and secondarily for their venison, this operation is one of the more unusual in my own experience.

*Photo by Randall Arendt.*



**Wholesale Tree Nursery  
Indian Walk, Doylestown Township,  
Pennsylvania**

Substituting long-term crops for corn and soybeans, the owner of the conservation land in this development in the Philadelphia suburbs grows trees and shrubs for professional landscapers. Low-impact operations such as this, and others illustrated here, are best suited for conservation subdivisions, with their proximity to residents.

*Photo by Randall Arendt.*



**Equestrian Facility  
Summerfield, Elverson, Pennsylvania**

Rather than burdening the homeowners association with the huge weekly expense of mowing extensive grassy recreation areas, this developer utilized the concept of "non-common" open space. This approach also enabled him to enhance his bottom line, not simply giving the land away to an association, but rather selling it to an experienced equestrian operator. Permanent easements and a municipally-approved management plan ensure that the paddocks are never developed, and always kept in good condition.

*Photo by Randall Arendt.*



**Randall Arendt and Rick Darke  
Allen, Texas**

Our host Randall Arendt, left, with landscape designer and garden writer Rick Darke, right, in a site feature comprising part of the cultural landscape on a project they are collaborating on in Allen, Texas.

For more information on conservation planning and subdivision design, visit the author's website at:

[www.greenerprospects.com](http://www.greenerprospects.com)

*Photo by Rosa Finsley.*