Enhancing subdivision value through conservation design

by Randall Arendt

Special Places in Your Community

If you live in the suburban fringe or in a semi-rural area, chances are good that you are not far from a stream valley, wildflower meadow or patch of woods. Chances are also that many of these places will be unrecognizable 20 or 30 years from now, unless they are located in a public park, state forest or wildlife refuge, or unless they happen to be protected by conservation easements held by land trusts.

That is because most areas have adopted zoning and subdivision regulations whose principal purpose is to set rules for the orderly conversion of virtually all land that is dry, flood-free and flat to moderately sloping into developed properties. But that's the nature of development, many would say.

But is it? While the above scenario might seem to make short-term sense, over the long run, communities following such a course are likely to become less desirable places in which to live and to experience a relative decline in property values.

Fortunately, practical alternatives do exist, and this article describes a straight-forward way to ensure that new subdivisions are designed to appreciate more in value and to help communities retain their character and overall desirability. This better result can be achieved by designing new developments around the central organizing principle of conservation, according to a "greener vision" in which communities pre-identify and proactively protect an interconnected network of open space through creative approaches to land development.

More good news: The planning technique described here does not involve reliance on public funding sources and

accomplishes its conservation objectives without disturbing landowner equity or the ability of developers to build at the overall legal density permitted by local zoning on their parcel.

This article describes a process that is both "a conservation-driven development approach" (in which conservation values determine subdivision layouts) and a "development-driven conservation approach" (in which developers can become the community's largest conservationists). That they can do very well financially by doing good is one of the many benefits of this very sensible way of developing land.

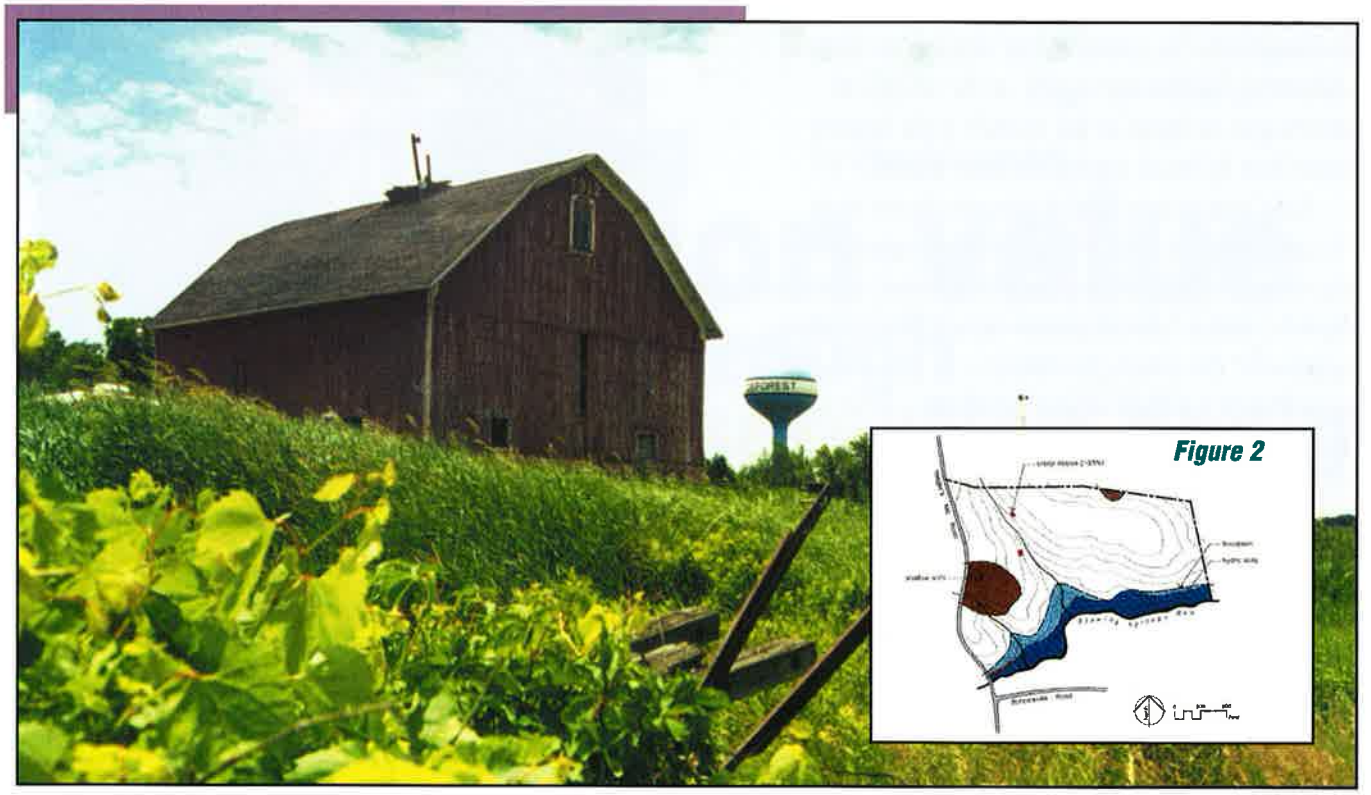
Fig.1

"Twice Green" Results

Conservation subdivision designs are "twice green" because they succeed both environmentally and economically. One community in Livingston County, Michigan, which has implemented conservation design over the past decade, has protected more than 1,000 acres through this approach, representing a land value of at least $20 million (its protection cost through more conventional means). One of the author's recent designs is credited by an Indiana developer as having added at least $20,000 of value to each of his lots, while still providing for full development density. And by respecting natural terrain and designing around existing site features on an 80-lot development in Texas, the author cut his developer-client's grading costs by 83 percent (from $300,000 to $50,000), compared with a conventionally engineered plan.

Determining Density

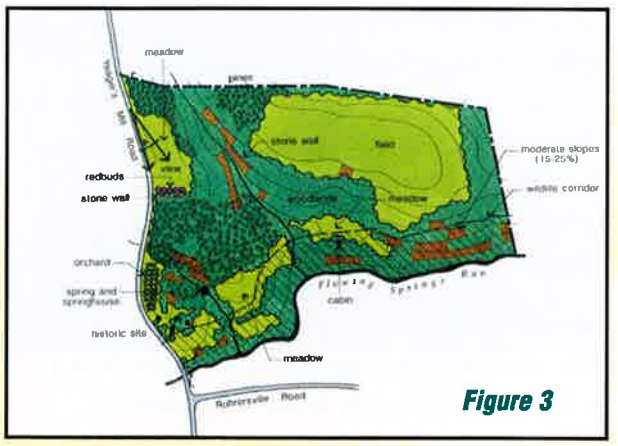
The aerial drawing above (Fig. 1) shows how a partially wooded property looks before being

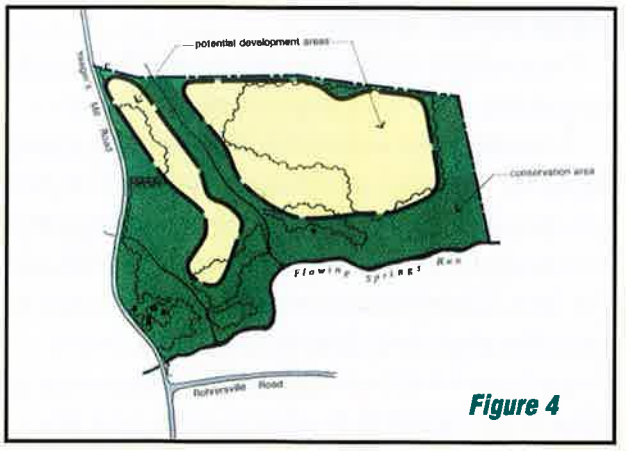


developed at the full two-acre density allowed under local zoning on this 85-acre parcel, which includes 68 acres of upland without any building constraints and 17 acres of unbuildable wetlands and steep slopes. The density is calculated either on the 68 acres of buildable land or according to a common-sense "Yield Plan" demonstrating the maximum number of two-acre lots that could be created with conventional platting. Following the principles of conservation design, two-thirds of the property could be preserved including all 17 acres of highly constrained soils and slopes plus half of the remaining land.

Retaining Special Features through Conservation Subdivision Design

Notable elements of the site which, if designed around and saved, would add measurable value to the new neighborhood include the roadside meadow with its border of redbuds, the small orchard along the country road, the rustic stone wall, the historic house and its outbuildings, the two small interior fields, the central pasture, the stream valley habitat and parts of the woodlands. A new breed of development known as "conservation subdivisions" makes it possible for developers to preserve these value-enhancing features and for communities to protect municipal open space





networks improving everyone's quality of life. At the heart of this new approach is a four-step process for laying out developments around the special elements of each property.

Step One: Identifying Conservation Areas

The first step, which involves the identification of green space worthy of preservation is divided into two parts: Primary Conservation Areas (Fig. 2) comprising regulatory wetlands, floodplains and steep slopes; and Secondary Conservation Areas (Fig. 3) including those unprotected elements of the natural and cultural landscape that deserve to be spared from clearing, grading and advancement. Once both kinds of Conservation Areas have been "greenlined," Potential Development Areas emerge more or less automatically as the remaining land, as shown in Figure 4.

Step Two: Locating House Sites

The second step involves locating the approximate sites of individual houses which for marketing and quality-of-life reasons should be placed at a respectful proximity to the conservation areas, with homes backing up to woodlands for privacy, fronting onto a central common or wildflower meadow, or enjoying long views across open fields or boggy areas. In a full-density plan, the number of house sites will be the same as that shown on the "Yield Plan" — 34 in this example (Fig. 5). In this process, an important goal is to lay out the actual development areas so that they can take maximum advantage of the property's conservation elements, thereby capturing the added value those elements convey. In this case, objectives for arranging development areas are to screen them from the public road, to provide them with access and views to the meadows, and to conserve for them as much undisturbed woodland buffer as is possible. With regard to the property's woodlands and fields,

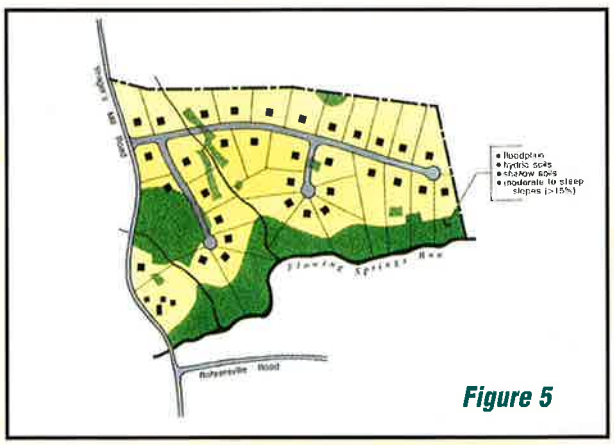


Figure 5

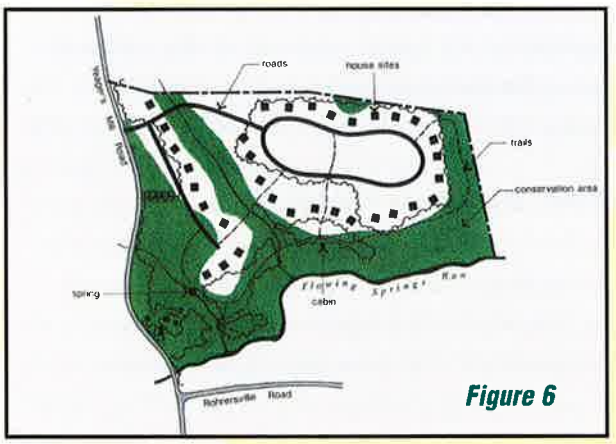


Figure 6

the conservation/development choice is sometimes an "either/or" proposition, depending on whether the forested areas or the farmland is deemed to possess greater significance. In this case, a compromise has been judged to be most appropriate, preserving the most critical contiguous areas of woodlands and streamside habitat, while also conserving most of the meadows and fields.

attractive park-like settings and that views of protected green space enable them to sell lots or homes faster and at premium prices (Figs. 7 and 8). Such homes also tend to appreciate more in value, compared with those on lots in standard "cookie-cutter" developments offering no views or nearby green space.

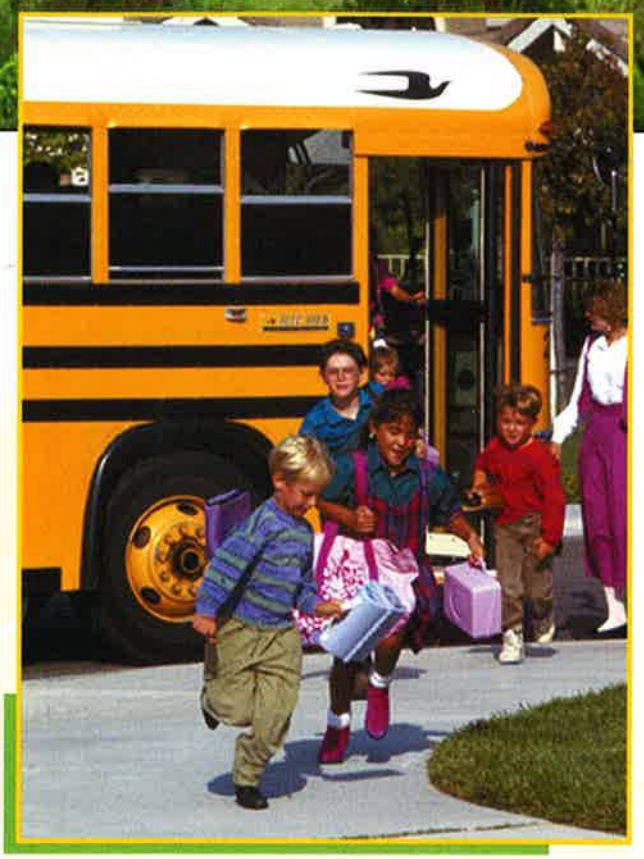
Fig.7

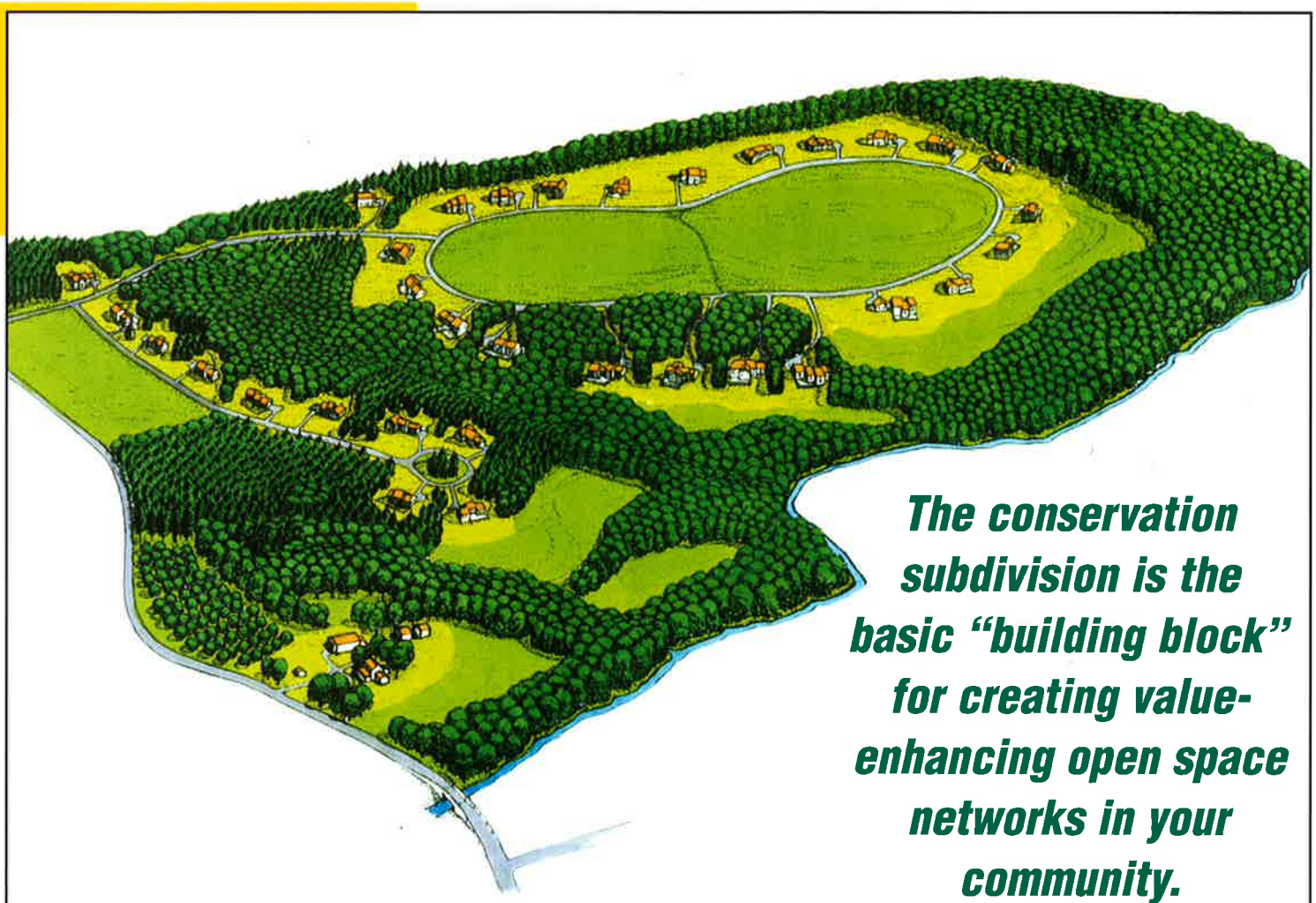
Step Three: Aligning Streets and Trails

The third step consists of tracing a logical alignment for local streets to access the 34 homes and for informal footpaths to connect various parts of the neighborhood making it easier for residents to enjoy walking through the green space, observing seasonal changes in the landscape and possibly meeting other folks who live at the other end of the subdivision (Fig. 6).

Step Four: Drawing in the Lot Lines

The final step is simply a matter of drawing in the lot lines, perhaps the least important part of the process. Successful developers of conservation subdivisions know that most buyers prefer homes in





The conservation subdivision is the basic "building block" for creating value-enhancing open space networks in your community.

Figure 8

Tying it all Together

The site design process described above should be related to the Community's Map of Potential Conservation Lands contained in its Comprehensive Plan, or at least to criteria guiding the location of the conservation lands so that linkages will be created between resource areas on adjoining properties. As each parcel is developed, the conservation lands network will emerge as a protected greenway system encompassing whatever features the community has identified in its plans and ordinance as being important to design around and save.

Because of its built-in cost savings and inherent adaptability to virtually any kind of development site, the conservation subdivision is the basic "building block" for creating value-enhancing open space networks in your community. When the inherent benefits of this approach are properly explained to local officials and residents, they often become much more amenable to revising their codes to encourage basic conservation design principles in new subdivisions. One way of introducing these concepts into your community is to incorporate sessions on conservation design in the continuing education courses for various land-use professionals working in your area, such as those the author has conducted for the state board of Realtors® in both Delaware and Maryland. For further information about conservation design, check out the author's web site: www.greenerprospects.com.

Randall Arendt is senior conservation advisor for the Conservation at the Natural Lands Trust in Media in Massachusetts. Mr. Arendt is also the founder of "Greener Prospects," a consulting firm located in Narragansett, MA.