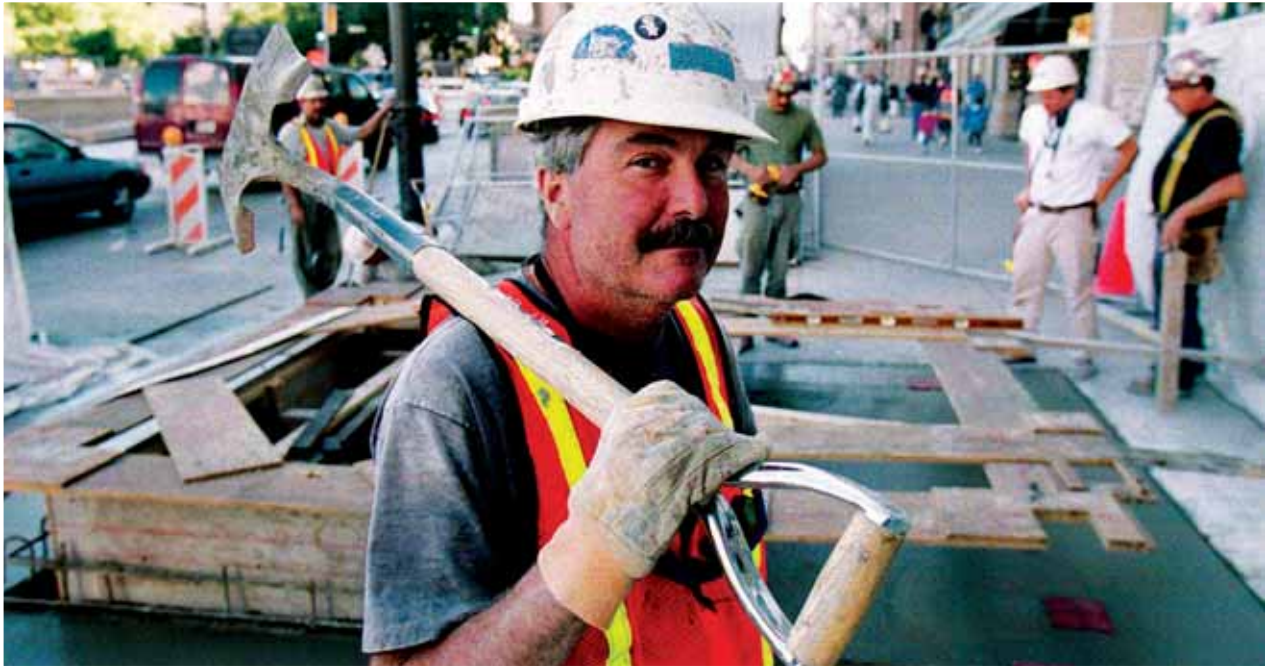


# Getting the Codes Right



## Form-based codes may be the key to future community plans

By David Goldberg

Only weeks before Katrina laid waste to key sections of his historic town, Gulfport Mayor Brent Warr had come into office with a promise to overhaul the city's zoning and development practices. Even he didn't realize what a dramatic revision that would be.

After the storm, Warr recognized quickly that the conventional zoning and other codes—which called for strict separation of uses, deep setbacks and auto-oriented streets—were unlikely to recreate the human-scale feel of the city's walkable, one-of-a-kind historic fabric.

When the Mississippi Renewal Forum brought 110 New Urbanist designers and planners to the coast for eight days, Warr was there day and night, sharing his ideas and vision and absorbing all that he could from the visiting experts. At the end, he had a large part of his answer, a new approach to guiding development known as form-based codes.

"It's the best way we know to get something like the traditional look and feel," says Warr.

And conventional zoning, as critics would have it, is the best way to continue stamping out the typical, asphalt-heavy development patterns the Gulf Coast was seeing before the storm. Typical zoning—referred to as "Euclidean" after the Supreme Court case that legalized it, *The Village*

*of Euclid v. Ambler Realty*—divides the normal functions of the city into districts restricted by use. In the beginning, zoning was rationalized as a way to separate homes from smokestacks, stockyards and other noxious uses. Today, critics say, it is used to separate compatible uses from one another. Not only are houses forbidden to locate near shops, but even different housing types are segregated from each other, so that large houses are separate from small houses, stand-alone houses are segregated from apartments and townhouses, and so on. The radical separation of uses requires a car trip for every activity, and so zoning and development codes demand wide roads and on-site parking for every building. Conventional zoning could be regarded as the DNA of sprawl.

As an alternative, planners and designers looking to meet the growing demand for more walkable, traditional town centers and neighborhoods have been developing form-based codes. Conventional zoning fixates on isolating uses and controlling density, while saying very little about how a community should look and feel. However, form-based codes regard use as only one factor in making an appealing community. While conventional zoning relies on huge books of text, form-based codes make use of graphics and illustrations along with



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text to indicate what kind of place is envisioned—whether a town center, a neighborhood with a walk-to shopping district, a sleepy village or a bustling central business district. And while zoning codes often exist independent of, and sometimes in opposition to, a community's plans and vision, form-based codes are designed to be a blueprint for making a shared vision for a place a reality.

"A lot of communities are rewriting their general plans with high-minded goals of sustainability, walkability, et cetera, but they're not rewriting their zoning ordinances," says Peter Katz, president of the Form-Based Codes Institute ([www.formbased-codes.org](http://www.formbased-codes.org)), and former director of the Congress for the New Urbanism. "If you know what it is you want to see built, and you know what it looks like, form-based codes make it easy."



"The classic neighborhoods and most-visited places we all love are illegal under most zoning codes," says Sandy Sorlien, one of the authors of the SmartCode manual, a guide to the form-based code created by the firm of Andres Duany and Elizabeth Plater-Zyberk, two founders of New Urbanism. "Adopting the SmartCode makes it legal, after it's customized for local character. It's really quite flexible."

Though the SmartCode is only three years old and form-based codes generally are a recent phenomenon, the modern take on them emerged 25 years ago, when Duany and Plater-Zyberk designed Seaside, Florida. The husband-wife team wanted the new town to have the form and comfortable function of a traditional Southern town, but they did not want it to have the overly master-planned look of a place designed by a single architect. After studying the places they admired, they developed a code to guide how buildings would work together to create streets that were appealing without being uniform, specifying how buildings should line up along the street, requiring entrances and windows rather than blank walls, etc. Within these guidelines, whether an architect employed



strictly traditional styles or ventured into modernist techniques and materials, the net effect would be cohesive, walkable neighborhoods that would stand the test of time, even if the uses within the buildings changed, as many surely would.

Duany himself says he got the idea from practices that were common in the streetcar suburbs and new towns built into the 1920s. Some trace the origins of such codes in North America to the era of Spanish colonization, when King Philip issued the Law of the Indies, a compact guide to the appropriate location for settlements, the dimensions of the central plaza, street layout and the features of key buildings.

**How form-based codes work**

In order to apply a form-based code, a community first has to decide through a planning exercise what kind of place they're coding for. That is, planners decide where on the scale from most rural to most intensively urban each area falls. In doing so, most rely on some version of the rural-to-urban transect, a concept borrowed from ecological studies that categorize wildlife habitat. The transect describes a range of human habitat, from rural hamlet, to the larger village, to the more complex town and finally the densest urban center. By historic convention and function, each environment has its own standards for the elements of human settlement: building, street, lot, land use, amount and character of public and open space, etc. Townhouses, for example, might be out of place in a rural hamlet, but they are appropriate, and even necessary, in a town center. In lectures on the topic, Duany likens it to footwear: The shoes you would wear to muck stables would not be appropriate to wear to a black-tie ball.

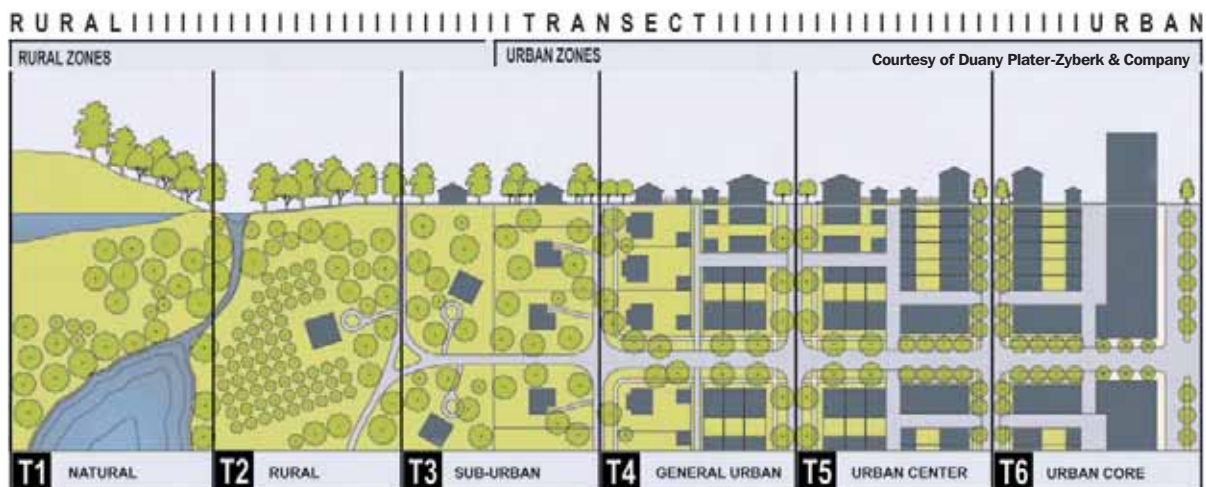
These environmental features can, and do, vary from region to region and city to city. For that rea-



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son, planners "calibrate" the code based on the characteristics of the place where they're working, by going into the field and measuring, say, the usual setbacks of houses or street widths and other features of the local places that the community would like to emulate. These are then incorporated into the standards for each transect zone, or T-zone.

Ideally, the roads that cut across many transect zones would change designs to reflect each environment. That is not the case with U.S. 90 on the Mississippi Coast, for example, which roars through community after community at the same volume and speed. "One of our most important recommendations," said Sorlien, who helped calibrate the codes for each town, "was that U.S. 90 should change as it moves through the zones. In rural zones it can be a high-speed highway, because there aren't people walking, shopping or children playing. As it gets to town the design needs to reflect the speed you want people to drive. That may mean narrowing the lanes, on-street parking and roundabouts. Rural areas don't have curbs and sidewalks, but when it [the road] enters town it does."



## Form-based codes regulate primarily through specifying the types of buildings that are appropriate to a given street or neighborhood.

Form-based codes regulate use to an extent, but primarily through specifying the types of buildings that are appropriate to a given street or neighborhood. This can allow a place to evolve over time, but without radically altering the character. "Think of the warehouse districts that have morphed into trendy arts districts with street-level shops and galleries and lofts above," she reflects. "The form of the buildings hasn't changed much, but the internal uses have all changed. Under use-based zoning, such a change would be considered drastic, because the land-use category has gone from industrial, at one end of the spectrum, to residential, at the other, although to the average onlooker, the place looks pretty much the same." A form-based code could help to encourage such adaptation by removing many of the regulatory hurdles to be cleared.

Indeed, because such codes, and the process that produces them, have the potential to reduce the regulatory head-banging and ad hoc decision-making, they are growing in popularity, says Paul Crawford, a California planner who now has helped to write 22 of them. A veteran of a county planning department and author of 80 conventional zoning plans before turning to form-based codes, Crawford developed California's first code for Sonoma in 1999. "When a community is clear about what kind of development fits and what doesn't, it makes the decision-making more predictable for everyone involved," says Crawford.

That was one appeal for Ventura, Calif., which is finalizing a code for a downtown district that is expected to be one of four areas with form-based overlays, says William Fulton, a Ventura council member and a leading expert on planning in California. "In a mixed-use district, this gets us out of micro-managing what goes on inside buildings," he says. Traditionally a slow-paced oil- and agriculture-oriented town, set between the ocean and the mountains, Ventura has become a favored landing place for Santa Barbara commuters, with growth tensions mounting as a result. The city has decided to manage growth by steering it to the four designated higher-density zones and paying careful attention to urban design through form-based codes, Fulton said.

### Working out the bugs

In adapting their approach, Ventura can look to the experience of Petaluma, Calif., the first to adopt the SmartCode by Duany Plater-Zyberk & Co. That Bay Area town adopted the code in just nine months, after a seven-year effort to complete and adopt a more conventional, use-based plan and zoning ordinance for redeveloping 400 acres of its downtown. For the citizens who had been pushing mightily for a way to code their vision for the area, the code was a godsend, said Mike Moore, the city's community development director. But implementation has been a little sticky, he said, in part because of the haste with which it was adopted.





Lesson number one is that it is hard to make a form-based code work as an overlay if you don't amend the citywide zoning ordinance to adjust the process to accommodate it, both Moore and Crawford, who worked on the codes, agreed. "One of the things we were trying to do with this code is avoid making people go through multiple processes, variances, et cetera, to build something that otherwise meets the plan and the code," Moore says. "But we're having to invent interpretations of the code that allow something to work."

And while it is relatively easy to write a form-based code for an undeveloped greenfield site or to fill the gaps in established pattern, it is much more difficult to write as a guide to transition from, say, a low-density strip retail or light industrial district to a walkable neighborhood. That can require an almost parcel-by-parcel assessment, Crawford says, which can take time and money. "The shortcomings are a result of the time it was done and what was known then," notes Crawford. As the momentum for form-based codes builds, the innovators are watching closely and learning from the early adopters. "There's huge interest and optimism," says Crawford, "but not enough track record, so practitioners have to carefully monitor how they're working to make sure they live up to the potential."

And momentum clearly is building, says Fulton. "We're on the verge of an explosion," Fulton predicts. "In the next couple of years we'll see dozens of form-based codes adopted. It may seem ironic that California, in many ways the motherland of automobile-oriented design, is blazing the trail in coding for mixed-use districts.

"It is because of the reliance on the automobile that California is figuring out more quickly than other places that this isn't working anymore," says Crawford. "Because of the state's issues with transportation, air quality and housing affordability, planners statewide are looking for ways to accommodate increased density and more compact urban form in ways that are acceptable, if not preferred, by citizens. The form-based codes are likely to be more successful at implementing that vision than conventional zoning codes."

In storm-ravaged Gulfport, the new approach represents both the future and the past, Mayor Warr says. "In some areas that had tremendous damage we're calling restoration districts—we can't really call them historic preservation districts because there's not much left to preserve—we're going to lean heavily on the form-based code." While the city is likely to make the code an optional overlay, he is confident it will be used. "I'd lay 70 to 80 percent odds that form-based codes will shape a lot of what gets built or rebuilt in Gulfport."

That communities from the deep South to the once-wild West are looking to form-based codes shows that something big is afoot, says Sorlein. "This is a sea change in land use, after 50 or 60 years of not building this way. There will be a learning curve at all levels so we will all struggle together to figure it out and make it better. That's what makes this fun and exciting."

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