Form-Based Design Standards for Smaller Communities

Randall Arendt
Town and Landscape Planner, M.Phil Urban Design; FRTP, ASLA (Hon.);
Greener Prospects, Brunswick, Maine.

An active professional and prolific author, Randall Arendt has just produced an all-new and greatly expanded edition of his best-selling book Rural by Design - Planning for Town and Country, first published by the APA and now available through Routledge. The book’s updated edition includes 80 percent new material, nearly 900 images, and was written to be relevant to large towns, small cities, and rural communities.

In recent years, many communities disappointed with the results of conventional zoning—which has often produced ugly strip malls along highway corridors and inappropriate single-story redevelopment in town centers—have turned to new approaches to better control the appearance of new buildings. Unlike typical zoning, these approaches provide criteria and standards governing the physical shape and placement of proposed construction. Two broad approaches have emerged.

The first approach, known as form-based coding (FBCs), represents a significant departure from conventional zoning that primarily regulates land uses and their density/intensity, shifting the emphasis to controls on building size and placement. FBCs allow greater mixtures of uses while loosely ensuring that inherently incompatible activities are separated. They primarily regulate the physical form of new development to ensure that it is more traditional—with taller buildings situated closer to sidewalks and streets, for example. FBCs also include a physical diagram (a “regulatory plan”) showing an illustrative or schematic layout of typical building footprints, parking, streets, and public spaces. New streets are shown as interconnecting with blocks typically not longer than 400 feet. These codes are often administered by staff, without public input or discussion (proponents argue that such discussion precedes code adoption and that no further public input is needed when individual projects are proposed, even years later).

However, the length of these codes (often 150 or more pages), their high cost (frequently much more than $100,000 to produce), and relative complexity have made FBCs more appealing to municipalities that are relatively large, have generous budgets, and are politically sophisticated. Training staff and officials (and retraining them when turnover occurs) can be another costly item.

Peter Katz, founding executive director of the CNU and co-founder of the Form-Based Codes Institute, has expressed concern that FBCs may face difficulties in achieving the wide acceptance that he and fellow advocates seek. He notes that FBCs and the best practices with which they are associated, such as high-quality urban design and the charrette process, are perceived as too costly by many communities. He points out that adoption of FBCs generally requires strong political leadership, highly skilled planning staff, and broad stakeholder support—qualities found in a small (but hopefully ever-increasing) number of communities. To that one might add the multi-year process of public education that sometimes precedes code adoption, to ensure that all stakeholders fully understand and support this rather different approach.

That said, a small number of communities have pioneered considerably less complex FBCs, ranging from 20-50 pages in length and costing about half the above figure. Good examples can be found in Dover NH (population 31,000) which worked with a consultant to produce a very effective 20-page FBC at a cost of $50,000, and Beacon NY (population 14,200) which created FBCs for two separate districts, entailing 46 pages total, for about $40,000.

A second approach that has emerged is even simpler and shorter, employing design standards that are added to existing zoning or “site plan review” ordinances, typically for downtowns and highway corridor areas. Another big advantage is that they can often be created in-house by staff at bare-bones cost or with minimal consultant time. This approach, called “form-based design standards” (FBDS) can be a good choice for smaller communities with populations under 15-20,000. For example, Davidson NC (population 12,400) and Freeport,
ME (population 8,400) have achieved extremely impressive results over the past 20 years with form-based design standards, employed in conjunction with existing or updated zoning ordinances. In both cases (and also in Durango CO, Oxford OH, and Sudbury MA -- with populations between 18,000 and 22,000), officials and staff closely examined FBCs and concluded that the FBDS approach would meet their needs very well in a far simpler and less expensive way. The regulations that these municipalities have adopted could provide useful models for other communities with limited financial or staff resources.

Notably, just two design standards produce most of the positive change, and they do so by inverting the conventional wisdom of requiring minimum front setbacks and maximum building heights. Standing those conventional regulations upon their heads, FBDS (and FBCs) establish maximum front setbacks and minimum building heights to re-create traditional streetscapes. Also, FBDS does not seek to deny or limit public discussion on individual projects, allowing boards and commissions to hold public hearings and to review, approve, or deny development proposals. It thereby also avoids placing heavy decision responsibilities on staff, particularly with controversial projects.

In Freeport, Maine, design regulations in its zoning ordinance apply to two central districts, one primarily commercial, the other mostly residential. When zoning or design review standards are being developed, neighborhood meetings are held to learn about neighborhood concerns. Ordinance language is developed accordingly. Although its reasonably basic design standards have served this community very well, other towns might want to supplement them with more specific language, particularly if this approach is new to members of planning boards or commissions. In neighboring Brunswick, the town considered FBCs in the downtown area but decided against it, instead removing minimum lot size requirements and allowing both higher densities and smaller setbacks.

There are no apparent downsides to the FBDS approach if the standards address the items in the below checklist (which go beyond the basic Freeport model). Of course, as with all new codes, officials need to help the community understand any new language and new processes for administering the design standards, besides building consensus on desired design characteristics.

It is recommended that communities adopting the FBDS approach illustrate their new standards with many photos and drawings depicting results desired in particular districts (as the better historic district ordinances do), including simple diagrams for buildings, parking, landscaping, and their relationship to each other and the streets. (A good example is the zoning in Eagle CO -- population 6,740.) Such illustrations help local officials, staff, residents, and developers better understand what new development should look like, creating shared expectations making the design, approval, and implementation processes considerably more accessible and more successful. Because the FBDS approach clarifies what is desirable in particular districts, development reviews can be more straightforward and shorter.

When setting new design standards (for building setbacks or height, for example), the components of particularly well-loved neighborhoods that most residents agree exhibit a desirable character should be measured and incorporated into the new regulations. When measuring these aspects, community members usually discover that these dimensions differ from those specified in their zoning, and come to understand that current regulations have been primarily responsible for the nontraditional appearance of much of the recent development.

Unlike zoning, which tells people what they cannot do, FBDS (and FBCs) show them what they should do, thereby ensuring more predictable results. Zoning that merely prohibits buildings over, say, four stories in the downtown does not necessarily produce compatible development. Such zoning fails to produce results in keeping with the surrounding downtown streetscape if it also allows new buildings to be single-story and set back 35 feet for front parking. The diagrams in a simple FBDS would illustrate design components such as “build-to lines” (showing buildings at the sidewalk edge, for example), or “build-up lines” (showing a minimum two-story height requirement-- in addition to a maximum building height).

Critical elements of Form-based Design Standards include:

- Maximum front setbacks apply, with allowances for “alcoves” or small courtyards. In town centers, a zero setback is often preferable – i.e., at the sidewalk edge. Along highways, it is often 20 feet, enough for a landscaped buffer, but no parking. (Because situations can vary, a range of setbacks is often preferable to one standard distance. Also, when street ROWs are particularly wide, as in arterial roads, it is important to create a sense of proportionality.)

- Minimum building heights apply, with requirements for functional upper floors and height proportional to street width. In many small towns, the minimum building height is two stories. (Maximum height is also controlled, often with input from fire safety officials.)

- Primary door entrances are along the street side opening onto sidewalks (or opening to a street corner)

- Minimum glazing requirements apply along the street side for commercial buildings
• On-lot parking requirements should be reduced. (They can be eliminated if public or private structured parking is provided nearby.)

• Parking (and gas pumps) to the rear or side. Screen side parking from streets by walls, fences, or landscaping about 42 inches high. Parking lots should provide access to adjacent parking areas, existing and future.

• Minimum street frontage is built-up to minimize gaps between buildings. (The width of permissible gaps depends on the urban-ness of the district; exceptions would include the provision of desired civic space in the gaps for small parks, public art, etc.).

• Side parking is limited to some maximum length or percentage of street frontage, to avoid small buildings with vast parking lots. Screen such parking lots.

• New streets should be interconnected, with a maximum block length of typically 400-500 feet.

• A broader use-mix should be encouraged within buildings and blocks, mainly uses that work well together such as ground floor retail with offices or residential above. Continue to separate uses that are truly incompatible, but not those that are merely different.

• Shade trees should be planted along streets and in parking lots. Avoid suburban landscaping buffers.

• In residential areas, when lot width is less than 60 feet, garages should be accessed by rear lanes (alleys). When lots are wider, garages facing the street must be recessed at least 10 feet from housefronts, to avoid dominating the streetscape. Alternatively, they could be turned at 90 degrees from the street.

Joel Russell, former head of the Form-Based Code Institute believes there is “no reason in principle why a simple set of form-based design standards could not work in a small town with limited staff.” He continues: “It is important to ensure that the zoning does not contain conventional standards that prevent good form. A few simple and clear standards that are illustrated and based on a shared community vision for a specific place can be sufficient for a small community. I think some planners worry too much about which tool to use, rather than how to achieve the best results in a particular situation with whatever tool is politically acceptable and economically feasible.” Readers can learn more about “lighter” FBCs and form-based design standards in Simplify That Code, an article by the author and published by the American Planning Association http://greenerprospects.com/PDFs/Simplify_thatCode.pdf

The following section presents numerous illustrations of the results achievable through form-based design standards.

Examples of Positive Results Achievable with Relatively Simple Design Standards

Figures 1 & 2: The main street of Freeport, Maine contains a half-dozen buildings complying with the town’s form-based design standards.
Figures 3 & 4: The two-story CVS and the three-story Stowe’s Corner building in downtown Davidson NC replaced gasoline stations, and followed the town’s form-based design standards.

Figures 5 & 6: Before-and-after pair from Oxford OH’s main street showing new infill buildings that restore the scale of this traditional downtown, and designed according to the city’s downtown design standards. The two new buildings are actually one structure, providing private rental housing for University of Miami students above shops and restaurants.

Figures 7 & 8: Brunswick, Maine is another town that has achieved impressive results by applying design standards to ensure new buildings are of an appropriate scale and are situated along the sidewalk edge.
Figures 9 & 10: New corner buildings in Eagle and Durango CO were also regulated through sets of relatively basic design standards, demonstrating that elaborate codes are not necessary when communities require minimum building heights and limit front setbacks.

Figures 11 & 12: Located along Rt. 20 as one enters Sudbury MA, the Mill Village redevelopment provides entrances both facing the street (left) and facing its rear parking (right).

Figures 13 & 14: The bank at left is located at the corner of Rt. 91 and US Rt. 1 in York, Maine where highway corridor design standards have been in place since the early 1980s, while the buildings at right are in Clover Lawn Village, a new mixed-use development along US Rt. 250 in the hamlet of Crazet, VA (about ten miles west of Charlottesville).
Figures 15 & 16: The design of this convenience store and rear gas pumps along Rt. 24 in Topsham Maine was regulated by the town to visually subordinate the large canopy with its pumos, while allowing highly visible signage so that motorists cannot fail to recognize that they can refuel their vehicles there. According to the owner, business has thrived.

Figures 17 & 18: Mixed-use buildings with residential or offices above shops (left) can be scaled, sited, and designed to fit comfortably into many communities, as can multi-family attached housing (right), from Eagle CO.

Figures 19 & 20: When rear access lanes are not provided in residential areas, dominant, protruding front-facing garages can be prohibited by requiring front-facing garage doors to be recessed 10-15 feet from the front of new homes (left). Alternatively, garages may be allowed in front, if their doors face to one side (right). When lots are less than 55 feet wide, alleys should be required.