



CHAPTER 5

SITE DESIGN STANDARDS

Most local governments in the Alcovy Watershed have site design standards included in their ordinances to place minimum standards on new subdivision construction. Standards typically govern such things as street width, cul-de-sac size, number of parking spaces, use of sidewalks, and protection of trees and open space. These standards serve a number of purposes, including:

- Increasing public safety,
- Preventing new development from imposing excessive burdens on public infrastructure, and
- Providing aesthetic benefits.

Rarely are they intended to promote better environmental protection. This chapter will discuss how site design standards can be modified to improve water quality protection while still meeting other fundamental goals. In evaluating site design standards from this perspective, two key questions are:

1. *Do the standards require excessive amounts of impervious surfaces?* Minimizing impervious surface is essential to effective management of stormwater.
2. *Do the standards discourage pedestrian-friendly communities?* Sometimes, design standards can be barriers to developers who are interested in building mixed-use developments and conservation subdivisions.

At a minimum, site design standards should not be a barrier to developers who want to build environmentally friendly developments. Often, this goal can be achieved by relaxing the standards somewhat to give developers greater flexibility. The Center for Watershed Protection has published guidelines for a number of key development parameters (Center for Watershed Protection 1998). Many of these are listed in Table 5.1, along with the current ordinance regulations for Newton, Walton and Gwinnett Counties. The regulations for Jasper County and the various municipalities were not reviewed, but they can be readily compared to the recommendations.



Table 5.1. Recommended and Actual Site Design Standards for Newton, Walton and Gwinnett Counties (Recommendations from Center for Watershed Protection 1998. Note that as of this writing, Newton County is considering amending its code to allow for increased flexibility in these requirements.)

Standard	Recommended (All)	Newton (Current)	Walton (Current)	Gwinnett (Current)
Low-density residential street width (ft)	= 22	22	20	24
Minimum cul-de-sac radius (ft)	= 35	40	50	40
Alternative turn-arounds	Encouraged	Unspecified	Unspecified	Unspecified
Curb and gutter generally required	no	yes	no	yes
Min. parking ratio for shopping ctr. (spaces/1000 ft ²)	= 4.5	5	5	5
Min. parking ratio for office building (spaces/1000 ft ²)	= 3	3.3	3.3 ⁽¹⁾	3.3
Min. width for parking space (ft)	= 9	Unspecified	10	9
Min. width for sidewalk (ft)	= 4	4	Unspecified ⁽²⁾	Unspecified ⁽²⁾
Min. setback for 1/2 acre res. Lot (ft)	= 20	35	50	35 ⁽³⁾

⁽¹⁾ One space for each 300 sq. ft of ground floor area, plus one space for each 500 sq. ft. of upper floor area.

⁽²⁾ Sidewalks are not generally required.

⁽³⁾ 25 ft for modified single-family development.

Recommendations for Protecting Water Quality

Streets and Cul-de-sacs. Streets should not be wider than is necessary to meet projected traffic demands and to provide emergency vehicle access. Wider streets not only create more impervious cover, which increases runoff and reduces water quality, but they also are generally less safe for both motorists and pedestrians. They also cost more to maintain. Local governments should encourage developers to build streets no wider than required. The street width requirements of Gwinnett County are excessive.

In addition, each local government should encourage the use of alternative types of turn-arounds, such as “hammer heads” (these are just what they sound like: T-shaped turn-arounds at the end of a street), that cover less area. The cul-de-sac requirements of Walton County are greater than necessary and should be reduced. Finally, street and parking lot design standards should specifically allow porous paving in areas where it is technically feasible.

Curb and Gutter. Vegetated swales should be encouraged as an alternative to curb and gutter. Walton County specifically allows this option. Other jurisdictions generally require curb and gutter, which increases impervious surface area (for example, Newton County currently requires 27’ wide streets, including five ft of curb and gutter) and leads to runoff problems.

Parking. Minimum parking requirements should not require developers to over-build parking lots. The requirements of the Gwinnett, Newton and Walton Counties are reasonable in this regard. However, they should also be supplemented with limits, which



require that any parking that exceeds the required amount by more than 10% be in the form of porous materials. Parking requirements should not demand spaces wider than nine feet. Walton County's requirement of 10 ft spaces should be relaxed to be consistent with this guideline.

Sidewalks. All local governments should either require or encourage sidewalks to make communities accessible to pedestrians. These requirements should be flexible and minimal, however, to discourage over-building. If a minimum width is specified, it should be no more than four feet. Furthermore, developers should not be required to provide parking on both sides of the street unless high foot traffic demands it.

Setbacks and lot size requirements. The zoning and development code should not encourage sprawl by requiring excessive setbacks and minimum lot sizes. Minimum setbacks should be reduced to a level sufficient to provide for public safety. Currently, Walton County requires setbacks that are very large, while Newton and Gwinnett County have more reasonable requirements.

All zoning codes should be modified to treat minimum lot sizes as maximum densities, giving developers the flexibility to cluster the homes more densely while preserving greenspace. Currently, Gwinnett County provides for a "modified single family development" that reduces minimum lot sizes and requires preservation of open space—a somewhat anemic form of conservation subdivision. Newton County provides for Community Oriented Residential Development, essentially a type of planned unit development that allows greater flexibility in site plans. Newton County also encourages conservation subdivisions.

Consistency with other regulations. All local governments should undertake a comprehensive review of their design standards, and other elements of their zoning and development codes to ensure that they are consistent with other regulations. This is especially important for local governments that pass a comprehensive stormwater ordinance that is designed to minimize runoff through good site design.

Conclusions

Overall, Walton, Newton and Gwinnett County have good design standards. However, each jurisdiction has a few requirements that will impede the use of innovative techniques to reduce impervious cover and protect water quality. All jurisdictions in the Alcovy Watershed should take a thorough look at their zoning and development codes to ensure that they are consistent with their ordinances to protect water quality.



References

Center for Watershed Protection. 1998. *Better Site Design: A Handbook for Changing Development Rules in Your Community*. Ellicott City, MD: Center for Watershed Protection.