

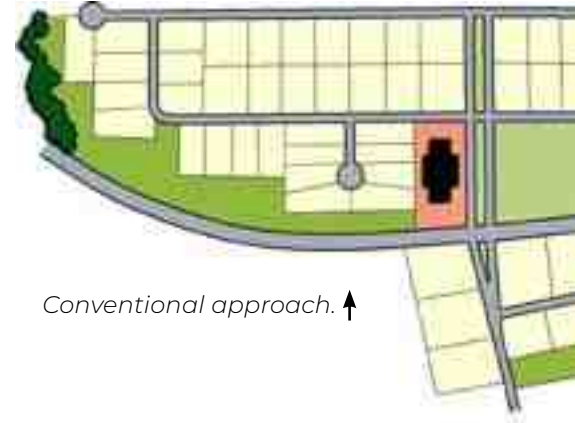
A.3 | Model Conservation Subdivision Guidelines

DESIGN STANDARDS

Purpose: To create a very livable neighborhood, interspersed with functional open space, to improve the quality-of-life of the new residents.

The following is a memorandum provided by Randall Arendt, FRTP, ASLA, for the Chaffee County Office of Housing to serve as a model for a future ordinance. Among the special features of any such new neighborhood are the following sixteen design concepts that are recommended to be incorporated into designs for projects with public, or central, water and sewer infrastructure, where greenway design is desired.

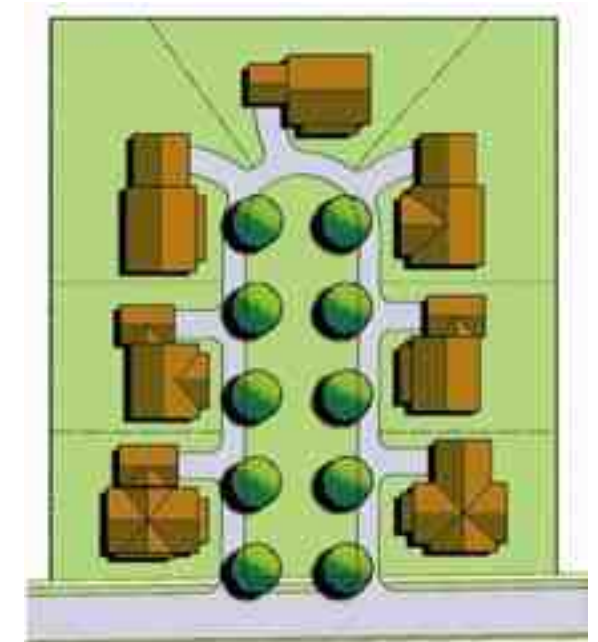
1. **Foreground Meadow:** Many roadside parcels can be developed with an attractive side facing the main public road, but with homes pulled back from it to reduce negative effects of traffic noise, etc. The park-like open space that is thereby created can be planted with a variety of deciduous and coniferous trees. This area buffers homes from the busy road running along the front of the property, and provides greater backyard livability. It also presents the traditional front facades to the public street, instead of lining it with backyards or fences. In the sketch at right, the conventional approach is at the top; the recommended approach is at the bottom.



2. **Numerous Neighborhood Greens:** Many properties lend themselves very well to the concept of creating separate but related “outdoor rooms”, defined by central open space. This special new neighborhood offers a variety of greenspace ranging from a central green to an informal ballfield. In the above example, the author redesigned a conventional extension to a small village by trimming lot sizes and creating both a neighborhood green and an informal playingfield with the acreage that was not needed for houselots.



3. **Terminal Vistas:** Greenspace is deliberately positioned either at the ends of streets, or along the outside edge of curving streets, so that the visibility of these amenities will be maximized.
4. **Closes:** As an alternative to the standard cul-de-sac, a “close” consists of a one-way street looping around a small central green. The turning radius at the far end is designed to meet engineering standards for turning movements required by long vehicles, such as fire trucks and moving vans.



Sometimes the central green area can be used as a rain garden, where stormwater pools for a few days before being absorbed by the soil, cleansing the runoff and replenishing the aquifer.

5. **Green Streets:** When garages are located in the back, accessed by rear laneways, opportunities exist for eliminating the street that traditionally runs in front of houses. In this example, the street area has been landscaped as a green space, with sidewalks for pedestrians. While a sidewalk down the middle might seem obvious, it does not create the same parklike atmosphere as two sidewalks bordering a central green. In a street grid pattern, these streets would be located in lieu of minor cross-streets, and could be repeated in line across a number of blocks to form a greenway spanning an entire neighborhood, perhaps linking homes with a larger part, shops, or a school.



Green streets. ↑↓

This design approach can be used in neighborhoods of single-family detached homes, or in ones involving attached housing, such as condominium units or apartments.

6. **Bungalow Courts:** Bungalow courts, sometimes called “pocket neighborhoods”, can be seen as an extension of the “green street” design concept illustrated at bottom right. However, there are differences, the principal one being they are designed around a central, shared open space that is their basic building block around which homes are arranged. Sometimes homes frame it on all four sides, and often the neighborhood green is broader than that in a “green street” design. The definitive book on this subject is *Pocket Neighborhoods*, by Ross Chapin (2011, Taunton Press).



Bungalow courts.

7. **Rain Gardens:** Provision should be made for the creation of “rain gardens” within parks and the greenspace bounded by the neighborhood greens. These engineering features allow the first flush of runoff from most storms to infiltrate directly into the ground, irrigating the trees and other park vegetation, and also replenishing the aquifer.



These design elements work best when the street pavement is sloped inward toward the central greenspace, with curbing along only the outside edge of the street, not the inside edge, to allow sheet runoff to enter the rain gardens.

8. **Attached Greens:** An “attached green” is one where a row of houselots abuts the greenspace directly, with the street located at the far edge of the green (and garage access provided via rear laneways running along the back lot-lines). It is a useful design approach, particularly along busy streets. This orientation greatly enhances the livability of homes, whose residents step directly from their front porches right onto the greens.



Rain gardens. ↑↓

9. **Mid-Block Connections:** Footpaths and sidewalks should provide ways for pedestrians to cut across long blocks midway between street intersections. In Britain they are known as “twittens”.



10. **Garage Orientation:** When lots are less than 60 feet wide, builders often locate garages as appendages to the housefronts, with the result that protruding garage doors become a central feature of the street facades, dominating the streetscape and defining the neighborhood in a distinctly non-traditional way. A far better alternative is to recess front-loaded garages, or to provide rear laneways. One way that municipalities can easily ensure that front-facing garages do not dominate streetscapes is to require a minimum front setback for garage doors that is 10-15 feet deeper than the front setback for homes.



Attached Greens. ↑

When lots are less than 60 feet across, they really benefit when homes have rear-facing garages (accessed via laneways). Municipalities can require such laneways, and can prohibit front-facing garage doors, when lot widths are less than that.



Mid-Block Connections. ↑

When laneways are provided, they should be planted with shade trees, just the same as the streets in front (see next design concept, below). Rear access can take the form of private common drives or “back lanes”, maintained by condominium corporations.

11. Back Lanes for Rear Garage Access:

Laneways are important design features to avoid front-facing garages that dominate streetscapes on lots less than 60 feet wide, or with some-detached (duplex) homes having two-car garages.

- 12. Semi-Detached Homes:** Front-facing garage doors are possible with duplexes having single-car garages, as illustrated at right. But when these homes have two-car garages, they can be done successfully only with rear access via laneways. (The image at right second from bottom is a two-family home designed to resemble a single-family home. Each front porch has its own front door, and the porch structures help to visually subordinate the two entrances. This effect is enhanced by one porch being set back farther from the street than the other.)

- 13. Shade Trees:** It cannot be emphasized enough how very important shade tree planting is along neighborhood streets, particularly in treeless agrarian landscapes. Shade trees should be planted at 40-foot intervals on both sides of every street, between the curb and the sidewalk, in tree-lawns at least six feet wide. If they are not required at the outset, they are seldom planted afterwards, and almost never in any consistent manner.

The photo at bottom right shows shade trees in Boise, which was originally built in a very open, treeless landscape, demonstrating what can be accomplished in such areas.

Front-loaded garages.



Semi-detached homes, single car garages.



Two-family home with recessed porch.



Shade trees in Boise.



Street trees in rural areas.



Sidewalks for safety.

If the jurisdiction fails to require such shade tree planting from the developer as a conditional of approval, chances are they will never be planted, and decades later the streetscape will remain barren and unattractive. The upper left photo on this page shows how well shade trees grow in new developments located on former farmland, which is often subdivided in rural areas.

- 14. Sidewalks for Safety:** Separating pedestrians from cars and trucks is always a worthy cause. Older communities routinely required them as a matter of course. However, in recent decades the importance of this basic safety feature has often been overlooked.

- 15. Traffic Calming:** The two one-way streets encircling the first “outdoor room” or neighborhood green (middle right) are designed with T-intersections requiring drivers to come to a full-stop before proceeding through. Other parts of the street networks have been consciously designed to calm traffic, by deliberately introducing tighter curves and three-way intersections where motorists must slow down. Another traffic-calming device is the informal central median. Where fencerow trees exist, they can be incorporated in to the design. Where they do not, such medians should be planted with canopy shade trees capable of filling the “celestial space” overhead, in the fullness of time.



Neighborhood green traffic calming.



Drainageways as boulevard features.

- 16. Drainageways as Boulevard Features:** Retaining a line of existing drainageways can help preserve key features of the rural landscape and add value to any project.