

Principle 6: REDUCE THE IMPACT OF THE CAR

Design Streets for Healthy Neighborhoods



Which street is better for the environment? Safer for children? More affordable to construct?

OVERLY WIDE NEIGHBORHOOD STREETS encourage speeding, generate run-off and non-point-source pollution, and increase the cost of new houses along the street. Traditional streets, on the other hand, provide for healthy neighborhoods and livable communities. Traditional streets, which were the norm before World War II, are designed for use by people, not just motor vehicles. Such streets are designed for low speed (15–20 mph) and typically provide sidewalks, on-street parking, shade trees, and other community amenities.

These design elements combine to create an environment that encourages walking, bicycling, and a sense

of community. Traditional streets are narrower than conventional streets, and they are well connected to distribute motor vehicle traffic and to provide a variety of places to walk. Traditional streets have blocks no longer than 300–450 feet, and intersections have turning radii that require low speeds, yet allow access by emergency and service vehicles. Traditional streets are safer for children because traffic volume and speed are reduced. Traditional streets are also better for the environment because less pavement means less run-off, less soil erosion, and less non-point-source pollution. Traditional streets are also less expensive to construct and provide developers and realtors with a marketing advantage over subdivisions with conventional streets.

“Our most valued places are often sites which lack our most valued possession: cars.”

David Sucher, *City Comforts*

THINGS YOU SHOULD KNOW:

- The conventional approach to street design aims to move more traffic faster at the expense of everything else. However, accommodating cars and trucks is only one of a street’s functions.



Key Bridge allows pedestrians as well as cars to cross the Potomac River.

- Since there are so few destinations or amenities within conventional subdivisions, residents must typically make 10 to 12 car trips per household per day. Children must be driven or take the bus to school and parents must spend the weekend chauffeuring their children everywhere.
- Conventional street design encourages motorists to speed through neighborhoods at 35 or even 45 mph. Typically, the wider the street, the faster the cars go.
- When pedestrians are hit by cars going 40 to 45 mph, they die 83 percent of the time. On the other hand, if a pedestrian is hit by a car going 20 mph, the fatality rate falls to 3-5 percent.
- Traditional streets are really like outdoor rooms; cars are slowed and pedestrian comfort is increased by adding street trees, on-street parking, sidewalks and placing buildings closer to the street.
- Traditional neighborhoods often have neighborhood schools, parks, churches, small stores and other attractions to which people can walk.
- Before Walt Disney Corporation built Celebration, its new traditional town in Florida, it conducted an extensive market study of what homebuyers wanted. Their study found that 50 percent of Americans wanted to live in a village-style community or a traditional neighborhood.

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- However, since only one percent of new development is designed to replicate older traditional patterns, a major demand for neighborhoods that retain small-town living styles goes unfulfilled.



Historic stone overpass in Staunton was converted to a creek-side park.



South Riding private lane is narrower than typical subdivision street.

FOR MORE INFORMATION:

Residential Streets, 2nd edition, American Society of Civil Engineers, National Association of Homebuilders and Urban Land Institute, 1990; (202) 624-7000.

Street Design Guidelines for Healthy Neighborhoods, Dan Burden, Center for Livable Communities, 1999; (800) 290-8202.

Take Back Your Streets: How to Protect Communities from Asphalt and Traffic, Conservation Law Foundation, 1998; (617) 350-0990.

Build Trails and Greenways



Would you rather live in a community where you have to drive everywhere for everything, or in a community where you can walk, ride a bicycle, or drive to where you want to go?

WALKING FOR PLEASURE is the single most popular form of outdoor recreation in America today. Yet, in many Virginia communities, there are few places to walk, except on neighborhood streets. As a result, the popularity of bicycle and pedestrian facilities has risen tremendously in recent years. In 1992, the Virginia Outdoors Survey found that 48% of Virginians ranked the provision of additional hiking and walking trails as the state's most important outdoor recreation resource need. An additional 42% think bicycle trails are the state's top recreation resource need. Many Virginia communities are finding that walking trails, bike paths, and greenways are popular, safe, and cost-effective ways to provide more opportunities for hiking, walking, bicycling, jog-

ging, roller-blading, and other popular outdoor activities. Here are some examples:



Blackwater Creek Trail, Lynchburg



W & OD Trail, Herndon



Chessie Trail, Lexington



© ROCKINGHAM COUNTY PLANNING DEPT.

Path near Arboretum, Harrisonburg



C & O Canal towpath, Potomac, Md.

THINGS YOU SHOULD KNOW:

- Walking and bicycling improve personal health and fitness.
- Bicycling for transportation removes cars from the roads and eases traffic congestion.
- Bicycling means there are fewer cars emitting pollution, which improves air quality. It also saves money since less is spent on car maintenance and gasoline.
- Walking and bicycling create a sense of community by promoting social interaction with neighbors, co-workers, and other local citizens.
- Many studies demonstrate that walking trails and

bicycle paths increase nearby property values. In turn, increased property values can increase local tax revenues.

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- Spending by local residents on trail-related activities helps support recreation-oriented businesses and employment, like bicycle shops and sporting goods stores.
- Greenways often provide new business opportunities and locations for commercial activities such as bed and breakfasts, recreation equipment rentals and sales, and other related businesses.
- Evidence shows that the quality of life of a community is an increasingly important factor in corporate relocation decisions. Trails and greenways are often cited as important contributors to quality of life.

EXAMPLES CLOSE TO HOME:

- Greenways such as Virginia’s New River Trail State Park are often major tourist attractions which generate expenditures on lodging, food, and recreation-oriented services.
- The Town of Blacksburg adopted a Bikeway/Walkway Master Plan as part of its comprehensive plan. Pedestrian access to adjoining parcels is required, and if a bicycle path is shown on a map, the devel-



Bike lane, Charlottesville

oper can be required to develop that portion of the trail.

- The Washington and Old Dominion (W&OD) Trail in Northern Virginia is the nation's most popular rail-trail, used by almost 2 million people each year.
- The Sherando Area Bicycle and Pedestrian Facility will link high-density residential and commercial areas in Frederick County with a regional park and a high school. An ISTEA grant is funding the 2.45-mile first phase.
- Waynesboro is planning a greenway to link the city's parks and provide a trail along the South River, a dominant feature that runs through the City.

FOR MORE INFORMATION:

Economic Impacts of Protecting Rivers, Trails, and Greenway Corridors, by the National Park Service's Rivers and Trails Conservation Assistance Program, 1994. Available through The Conservation Fund, 1800 N. Kent Street, Suite 1120, Arlington, VA 22209; (703) 525-6300.

Greenways: A Guide to Planning, Design, and Development, by Chuck Flink, Loring Schwartz, and Robert Searns, Island Press, 1995. Available through The Conservation Fund, 1800 N. Kent Street, Suite 1120, Arlington, VA 22209; (703) 525-6300.

Trails and Greenways Clearinghouse, 1100 17th Street, N.W., 10th floor, Washington, DC 20036; toll-free (877) GRNWAYS.

Virginia Outdoors Plan - 1996. Available from the Virginia Department of Conservation and Recreation, (804) 786-2123. An in-depth discussion of the issues and trends affecting outdoor recreation and open space resource management and protection in the state of Virginia.

Reassess Road Standards

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Shouldn't new highways protect neighborhoods and quality of life in the communities they traverse?

EACH YEAR VIRGINIA COMMUNITIES are presented with plans to expand streets and roads. Whether the community is urban or rural, in Northern Virginia or the Shenandoah Valley, the explanation is almost always the same. A road that local people are accustomed to is said to be deficient. It does not conform to the latest standards. It is not wide enough or it has too many curves. Unless something is done, motorists will experience delays that highway engineers consider excessive.

Plans are presented that call for a road that is straighter, flatter, and above all wider than before. The highway department calls the project a road "improvement," but many local people are opposed to the project. Why? Because conventional road widening projects often damage scenery, livability and community character for little or no real benefit.

The conventional approach to road design aims to move more traffic faster at the expense of everything else. In her book *The Living City*, author Roberta Gratz tells the story of a small town that seeks help with repairs to an aging bridge, only to be told that repairing the bridge is "not cost efficient." Only by widening the two lane bridge to four lanes would federal funds be available. Adding two lanes, however, will require

widening and straightening the road that provides access to the bridge. This will require condemning adjacent park land, cutting down a row of 100-year-old trees, and demolishing several historic buildings. When local residents oppose the out-of-scale solution, they are accused of opposing progress and they are told federal rules "require" the new wider bridge.

Does this sound familiar? Well, it should because this scenario, in one form or another, is being repeated throughout Virginia. Overscaled, overpriced highway projects are imposed where smaller, less expensive, equally useful, and more environmentally benign solutions would do.

While ugly, overscaled highway projects are familiar to us all, the good news is that the Virginia Department of Transportation (VDOT) is becoming more sensitive to community needs and new federal transportation legislation now gives states the flexibility to use their own design standards in sensitive locations. What's more, federal law also makes it clear that highway projects should be designed with social, environmental, and cultural resources in mind.



Attractive bridge railings like this will be replaced with Jersey barriers unless Virginia communities request more sensitive designs.

THINGS YOU SHOULD KNOW:

- *Policy on Geometric Design of Streets and Highways*, also known as the AASHTO Green Book, is a publication that sets out recommended design standards for all federal aid highway projects.
- Controversy over design standards often arises when state DOTs take the Green Book standards and apply them in a rigid and unyielding fashion without regard for community or environmental impacts.
- Federal law says these standards “can be applied flexibly,” and the Federal Highway Administration (FHWA) has produced an easy-to-read-and-understand manual that thoroughly discusses the issues of design flexibility in federally funded highway or road projects. This publication, *Flexibility in Highway Design*, can be obtained from the FHWA (for ordering details, see the “For more information” section).
- Whereas the Green Book was based on the assumption that standards should meet the needs of motor vehicles, newer legislation, particularly the Intermodal Surface Transportation Act of 1991 (ISTEA) and the Transportation Equity Act (TEA-21), recog-

nize the importance of pedestrians as well as social, environmental and visual resources.

- For example, reducing the speed limit on a road through a historic village can be just as effective in reducing accidents as widening the shoulder by ten feet.
- The Route 50 Corridor Coalition in the Virginia Piedmont has developed a “traffic calming” plan for Route 50 as an alternative to the road widening plan originally proposed by VDOT. The traffic calming plan has been approved for funding paid by the federal government.

FOR MORE INFORMATION:

Design Guide for Rural Roads, Dutchess Land Conservancy, 1998, (914) 677-3002.

Flexibility in Highway Design, Federal Highway Administration, FHWA-PD-97-062, 1997. Available free from the Scenic Byways Clearinghouse, (800) BYWAYS.

Residential Traffic Calming Guide: Pilot Program, Traffic Engineering Division, Virginia Department of Transportation, December 1997, (804) 786-2966.

Traffic Calming: The Solution to Urban Traffic and a New Vision for Neighborhood Livability, Available from Citizens for Sensible Transportation, (503) 225-0003.