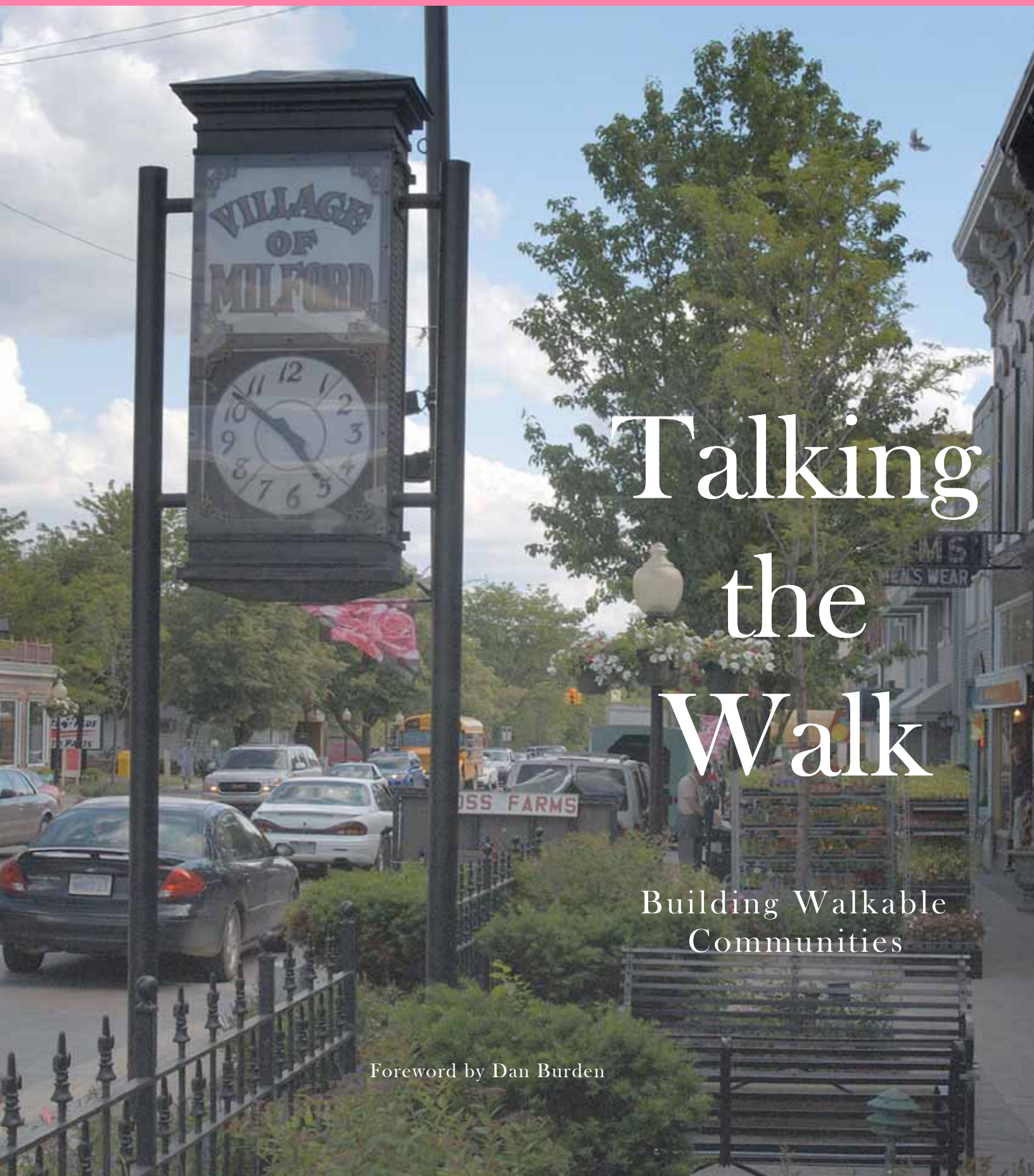
Leslie E. Kettren



Talking the Walk

Building Walkable Communities

Foreword by Dan Burden

Cover Photo

Downtown Milford, Michigan

Photo by Bekki Wasmuth

In 2000, Milford was designated as one of the most walkable communities in America by Dan Burden, founder of the Walkable Communities movement. I have been extremely fortunate to have lived in the Village of Milford since 1988 where my family has been able to experience the joys of living in a walkable community.

This book is dedicated to Lee
who supported me as I struggled to earn my college degree,
cared for me while I conquered cancer, and shored me up when
I became disillusioned with my professional career.
Thanks to his encouragement I was finally able to complete
this book after a journey of more than five long years.

- LEK

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Foreword

WE are each on a journey. Our cities are also on a journey … through time. For the past nine years my journey has allowed me to meet and work with many people, photographing the best new beginnings and greatest losses in over 1700 communities throughout North America. I do this with an eye for progress and failure. I use a camera, sometimes with a wide lens, often with a telephoto to compress goodness and badness. I frame and freeze moments in time; giving pride to a few, embarrassment to way too many. We can all do better, and we know it.

Michigan remains at the top of my list for sought after visits in America. Next to California, Hawaii and Florida I spend more time here than anywhere. While here I record and share my work, inspiration, and pride in its most courageous people. I love Michigan people. I really do. These people are our nation's past, present and future.

Sadly, Michigan is at the same time still plummeting into an ever deeper state of deep, disgusting failings, fatigue and offense. How can the Midwestern state most central to providing our nation its greatest personal mobility and freedom now find many of its cities at the top of dung piles; a still growing list of once elegant, walkable and workable places, now on America's hardest to heal spaces?

Flint, Saginaw, Lansing, Detroit and many other cities have not been healthy for decades. Their downtowns are windswept, dangerous, weedy and litter-strewn full of vacant buildings and despair. These cities are subjects of documentaries no one wants to be in.

It is not just the loss of an industry that has sufficient mobility to move about that is hurting Michigan's national image; it is a long term loss of footing of balance, of inspiration, of control of place making. It is a failure of people to remain committed to doing the hardest of all work, to work together, to preserve, to care, to nurture an entire state once packed with natural wonder.

As a child and fellow mid-westerner, I came to know and love Michigan's small lake towns, its mid-size cities and once or twice, its once great large metropolitan place, an urban center that once stood tall and distinct, a shopping and entertainment Mecca, an inspiration to a nation.

Many of these once elegant places have fallen … fallen hard, as many American cities have. The journey to these cities is not a roller coaster ride, it is almost a freefall jump off of a cliff. Many people in Michigan now spend much of their time driving through endless landscapes painted with abuse of unlimited land, money and easy rides to the next, more outer ring of growth and irresponsibility; and always with redundant oversized signs shouting "look at me."

I don't need to paint the picture, the image is indelible, and every day, every ride we take to anywhere. By foot the picture is even bleaker.

Michigan is not unique in having over invested in auto freedom and its corresponding fueling of personal and corporate irresponsibility. It is not the first, nor the most wrecked of places for human health, social exchange, and meaningless hours spent trying to escape or flee places we should be investing in, helping build again. There are many equals to monotonous patterns of isolation, fear, wasted, devastated time and land.

Nationwide the statistics are staggering. And they are growing worse. The national auto addiction is currently set at 72 minutes per day (and growing) in all states, in all regions. With each 10 minutes added to car time per week, volunteerism … the ability and desire to help others, shrinks 10%.

What is even more grave, as Americans we are told the lack of daily physical activity has led to a condition where our children will be the first in known history not likely to outlive their parents. Once walking to school was as common as the plains. Today, only one child in ten now walks to school. These losses are not the abuse of a single agency, a single city, or a single place. It is a joint failure of one and all. Our national health care costs rose 36% in just the past few years … and they will continue to grow, astronomically until we regain our ability to live active lives. Our feet have always been the answer. We keep looking for silver bullets. They are never found.

There are no easy fixes. Taxpayers head the list of those looking for cheap ways out. At the same time their personal standards of living are rising, with bigger cars, more country club memberships, more recreational vehicles of all kinds, all while individual and community quality of life is

Photo 2. Madison Heights

This is a photo of Dan Burden and Leslie Kettren taken in August, 2004. Dan and Leslie have been collaborating and pooling resources for nearly ten years now.

falling. Bright, new, courageous, charismatic leadership, what we need most to set a new course … is even harder to find.

Despite the above statistics, my travels lead me to be our nation's most energetic optimist. From private chats, one on one, with Michigan developers, planners, architects, volunteers … to precious times spent looking out upon eyes of hundreds of volunteers and leaders listening to keynote presentations I have been fortunate to give, I see a brilliant future for Michigan.

In this important writing, Leslie gives us a thump or two, as well as gentle and not so gentle footsteps and paths to follow. My ten years of Michigan trekking, talking, investigating and chatting with many exceptional people leads me to believe that the same human resource, historic talent, commitment, hard work and genius to invent, popularize and provide a nation its machine for personal mobility, will help us un-pave and resettle a human scale, sociable habitat.

Michigan can again be first. As you will learn in these pages, it won't be easy. We have to not only change our physical environment, but our attitude, or quest. We must get back to doing and paying for those things we value the most. We must reclaim quality of life, not for one, but for all.

We must decide as individuals, as communities where to spend money and energy. We must decide to stop fooling around with urban spaces, and treat them with our highest regard and respect, to fall in love with urban life again. Our rural lands suffer as we all attempt to claim our own personal tiny corner of it. Again, in this important writing Leslie documents and shares many early seeds, ideas, case studies, notions and a few early triumphs.

In August of 2004, under a program of the Michigan Department of Transportation and Governor Jennifer Granholm's Cool Cities initiative, I had the pleasure of walking a dozen towns for the Governor, and another dozen on my own during days off. These included little places like Portland, Jackson and my wife's birthplace, Ypsilanti … bright new settlements of waterfronts in Bay City and Traverse City, reclamations spirited by a Latino volunteer of an African-American neighborhoods on Wealthy Street in Detroit, and other diverse places in Grand Rapids.

From my travels, I have a knowledge of urban life achievements few Michiganders have. You have yours too. Work from them. Travel a lot. See, measure, evaluate. Decide for yourself what works and why. Know what fails and testify and share why these places are not good. Know the difference, not only in your mind, in your heart. Together, we will invent a better use of our mobility, our money, and our land. Enjoy the journey.

— Dan Burden
Executive Director
Walkable Communities, Inc.

Chapter 1

Introduction

HELLO my name is Leslie Kettren. I'm a professional community planner (we are also called town planners in some states) who has finally found the time to tell a story about how road designers [1] and decision-makers went off the beaten path and what we can do about it.

When I started this book in 1998, I was still a council member with the Village of Milford, Michigan. My professional planning career was in full swing, and I was also serving as president of the Michigan Chapter of the American Planning Association [2]. As I recall, I was a very busy lady at the time. So I'm sorry to say that I did not spend as much time as I should have on completing this book in a more timely fashion. Even though I didn't spend as much time writing as I should, I continued to collect resource materials and set them aside for future use—of course, the future soon became relative. In retrospect, I *really* wish I had been more diligent about completing the book because the story needed to be told and in the hands of people sooner. But, as they say, you can't look back.

The Discovery…

My first exposure in learning how communities actually functioned was in 1988 when I was appointed to the Planning Commission for the Village of Milford. I attended university classes while on the Commission, and in 1991, I completed my college education and received a degree in urban and regional planning.

During the years 1991 through 1996 I worked for the cities of Ferndale and Clawson. It was while I worked for these two cities that I realized how important walking was to downtown businesses and city neighborhoods—and the fact that walking safely was a *problem* in both communities. I knew that the roads should work better for people—they were too wide, there was too much traffic and cars went too fast. The cities had removed downtown parking on the street and shoppers were not allowed to park in convenient places in front of the stores. I also noticed that neighborhoods weren't linked to shopping areas in ways that people could conveniently walk or bike. And, I also noticed that both communities had downtown and local businesses that *were not* thriving.

Then in 1997 I met a man named Dan Burden. Few people know more about planning and design of pedestrian and bicycle friendly communities than Dan Burden. Dan has personally photographed and examined walking and bicycling conditions in more than 2,000 cities in the United States and abroad. He worked as a bicycle consultant in China for the United Nations in 1994.

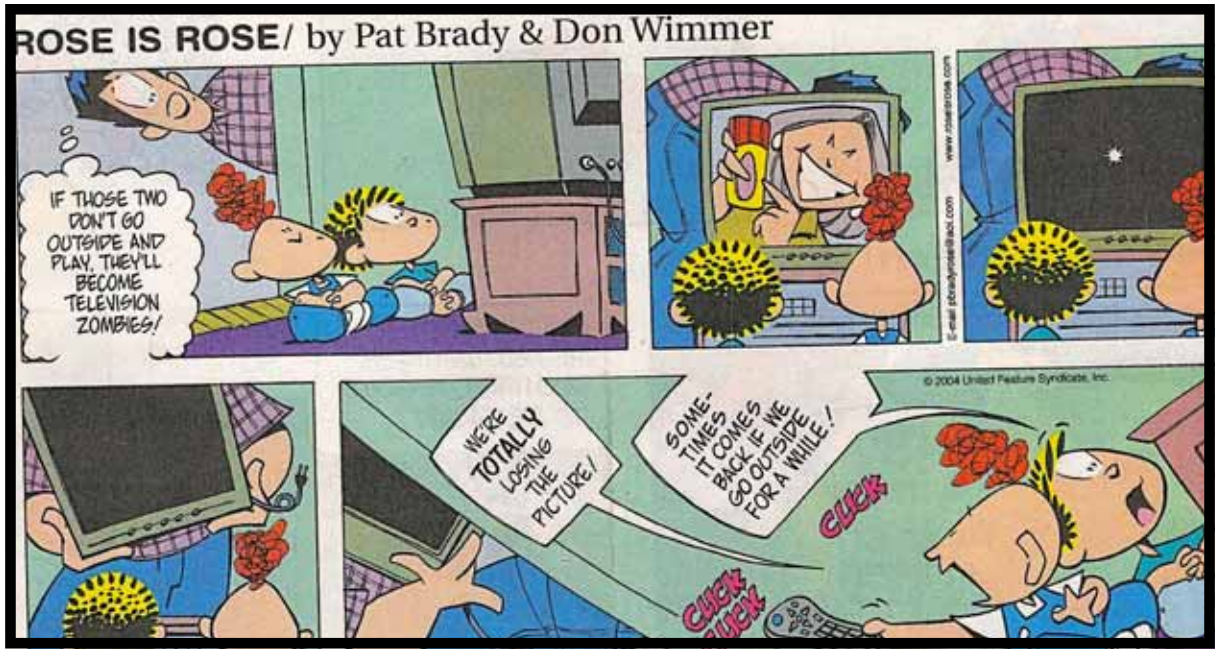
Photo 3. Ferndale

When Nine Mile Road in downtown Ferndale was widened, cars were no longer permitted to park in front of stores. Consequently, businesses locked their front doors. Walkers were forced to walk around the building and enter from the back.

His photographs have been published in *The New York Times, National Geographic*, and Sierra Club calendars. He was part of a team that videotaped and analyzed traffic calming and innovative pedestrian facilities throughout the United States. After serving for 16 years as Florida Department of Transportation's State Bicycle and Pedestrian Coordinator, Dan formed Walkable Communities as a non-profit corporation to help people develop walkable communities. You can find out more about Dan on his website at www.walkable.org.

I met Dan when I was president of the Michigan Society of Planning (now the Michigan Association of Planning) [3], a Chapter of the American Planning Association. The Michigan Chapter's annual planning conference was being held at the Grand Hotel on Mackinaw Island and Dan sat next to me during lunch. He had been invited to give the keynote address and explain the concept of walkable communities.

We talked about his ideas to make communities more walkable—and I became fascinated. Dan pointed out things to me



Families do not exercise as much as they should, consequently more and more people are becoming obese. The TV or computer is today's alternative to walking and bicycling. The way communities are designed—with few sidewalks and wide, scary roads with lots of traffic—discourage outdoor play by our children.

that on an unconscious level, I'd already recognized. However, the way in which he explained his thoughts and ideas—simply and understandably—allowed me to form a picture in my mind of what and how communities could be.

Finally, the cure for poorly designed roadways was here! From that day to this, I was hooked fish, line and sinker!

Now Dan isn't what I would call your usual type of motivational speaker. He sports a handle bar mustache and usually wears a fisherman's shirt, vest, and khaki trousers with many, many pockets. Those pockets of his are always filled with airline tickets, cameras, tape measures, batteries, recording devices, compasses, hard drives and other paraphernalia that comes in handy for whatever he's doing or wherever he's going. To complete his fashionable ensemble, he wears light-brown high top walking boots. Because of his unquestionable sense of fashion, you always remember Dan when he walks into a room! But beyond that, you remember Dan because of his passion, his vision and his expertise when it comes to the topic of walkability.

And so, I began to research and find out more about the walkable conditions around the State of Michigan and solutions that might be implemented. This is what I found…….

Serious Problems Confront Us

Historically streets were designed for a variety of uses, and especially for walking. However, over the last 40 years streets have been built almost solely for the automobile. Significant areas where people used to conveniently park on the street were removed. Streets were widened. Sidewalks were narrowed or eliminated altogether. This led to easier movement of cars and trucks, but of course made walking and bicycling extremely difficult. Streets that are overly wide, straight, treeless and flat—that is, uninteresting—and allow for high speeds rarely have a place in communities.

Why do you think suburban [4] areas have proven to be such a traffic [5] nightmare? The most obvious reason is that everyone is forced to drive almost everywhere. In suburbia, there is only one available lifestyle—to own a car and to need it for everything!

Sure we know there's a lot wrong with cars (expense being number one), but just try taking our cars away from us. Because of the way our communities are spread out, it just plain makes sense for most of us to drive our car to get anywhere.

Think about some of the recent traffic stories you've seen or heard in the newspaper, on the radio or television or even on the Internet. For many adults, commuting back and forth—whether it's for work, grocery shopping, clothes shopping, banking, dining out, doctor's appointments, daycare, dry cleaning or just visiting friends—means sitting alone in a car and

Definition of Community

U.S. Department of Transportation, Federal Highway Administration, Community Impact Assessment: A Quick Reference for Transportation, September 1996

There are many definitions of community. Usually we define it based on a geographic or spatial component. I have chosen to define community as follows:

> Community is defined by behavior patterns which individuals or groups of individuals hold in common. These behavior patterns are expressed through daily social interactions, the use of local facilities, participation in local organizations, and involvement in activities that satisfy the population's economic and social needs.
>
> Communities may also be based on a common characteristic or interest, such as religion, ethnicity, income strata, or concern for the economic viability of a region, which provides a psychological unity among members.

Suburbia is Where Cars Compete for Asphalt

Suburban Nation The Rise of Sprawl and the Decline of the American Dream, page 41

Like its culinary counterpart, the McMansion provides excellent value for its price. American homebuilders are perhaps the best in the world when it comes to providing buyers with the private realm, the inside of the house.

Dollar for dollar, no other society approaches the United States in terms of the number of square feet per person, the number of baths per bedroom, the number of appliances in the kitchen, the quality of climate control, and the convenience of the garage.

The American private realm is simply a superior product. The problem is that most suburban residents, the minute they leave this refuge, are confronted by a tawdry and stressful environment.

They enter their cars and embark on a journey of banality (ordinariness) and hostility that lasts until they arrive at the interior of their next destination. Americans may have the finest private realm in the developed world, but our public realm is brutal.

Confronted by repetitive subdivisions, treeless collector roads*, and vast parking lots, the citizen finds few public spaces worth visiting. One's role in this environment is primarily as a motorist competing for asphalt.

**Collectors are relatively low speed (25-30 miles per hour), relatively low-volume streets that provide circulation within and between neighborhoods. These streets are intended to collect traffic from the minor streets within a neighborhood and distribute such traffic to major thoroughfares – A Planners Dictionary, American Planning Association, April 2004, page 391.*

Diagram 1.
Travel Delay by City

(right) Vehicles are stuck in traffic for longer periods of time—which increases the cost for goods and services. People *get angry sitting in traffic—leading to road rage—an unhealthy and dangerous way to drive!*

Photo 4.

This is Dan Burden, wearing the black and yellow jacket. His passion in life is teaching community leaders how to make their towns and neighborhoods walkable.

moving along at a snail's pace on bogged-down, congested roads. As for kids, do they get hauled to school in busses—or do you spend big bucks on buying them a car to drive to school?Now, take a minute to think about the place you call home. Think about your neighborhood. Think about the shops you visit. Think about that long drive to work. Think about where the schools are located that your kids attend. Now picture in your mind about how you get to and from each one. How are these places connected? Can you walk or bike to them?

Now we're getting to my point—you *can't* walk or bike to most of them! I think we've got some serious problems on our hands. Only recently have I seen road designers and decision-makers consider that people might be a *little unhappy* about not being able to walk and bike to some of their favorite places. And only recently have I seen a glimpse of hope in the way roadways are being redesigned and built to accommodate walkers and bicyclists. In fact, I am now beginning to hear questions from community leaders like—"is there anything that can be done?" The answer is "yes—something can be done!" In some communities, change *is* already on the way.

This book is about the walkable communities movement. You'll find explanations and photographs that show why and how to change the way roads and communities are designed. You'll find photographs of "before and after" improvements to illustrate better ways of building streets. I've also included programs that get people involved in these efforts, especially children. My goal is to show people that there are better ways to build communities which are safer, friendlier, greener, and more engaging for public activities. The more a road varies in design, the more convenient it becomes for people who choose to walk and bike.

Traffic Congestion Rising

Detroit Free Press, September 8, 2004, By Leslie Miller, Associated Press

The Nation's traffic problems are getting worse faster than they can be fixed, even in small cities like Brownsville, Texas, and Pensacola, Florida.

In the 85 biggest U.S. cities, snarled traffic is costing travelers 3.5 billion hours a year, up from 700 million two decades ago, according to the annual Urban Mobility Report released Tuesday.

Using data from 1982 to 2002, the Texas Transportation Institute, part of Texas A&M University, measured just how much worse traffic is getting.

During that period, the study found the greatest leap in congestion in Dallas, from 13 hours annually in 1982 for the average peak-period traveler to 61 hours annually in 2002, and in Riverside, California, which went from 9 hours annually per rush-hour traveler in 1982 to an average of 57 hours in 2002.

The average Detroit commuter spent about 53 hours in traffic in 2002, ranking the city at No. 10 overall. The average urban commuter was stuck in traffic 46 hours a year in 2002, a 187-percent increase over the 16 hours lost in 1982.

In 54 cities, traffic jams increased 30-percent faster than roads could be built to alleviate them. A solution to ever-growing traffic jams isn't likely to come soon, transit and highway advocates said.

The American Association of State Highway and Transportation Officials estimates it would take as much as $400 billion in federal spending over the next six years to solve traffic problems, according to a 2002 study.

Photo by Dan Burden

Photo 5. Marquette Northern Michigan University

People from all walks of life and every profession can be catalysts for change. Here we see community leaders participating in a walking audit (see sidebar on page 7 for explanation of an audit). They are learning from experts and from each other how to make their community streets more enjoyable and safer for walkers, drivers and bicyclists.

I wrote this book for decision-makers and people from every walk of life, but not for the experts—although they'll learn from this book as well. In fact, engineers and other road design professionals probably will not like what I have to say. Why? Because I think almost everyone is aware that people have to rely on their cars to go everywhere, even when it's only a short distance away. Many of our streets and communities haven't been designed as "people-friendly places".

This is a book about redesigning our communities. For the movement to succeed, it needs people to work together—engineers, health experts, architects, landscape architects, economists, planners, administrators, decision-makers, and yes, parents and kids—to build better streets for better living environments. As a professional planner, I've learned that it takes a huge number of different professions and occupations to create change *(see sidebar below).*

How Do We Get Started to Make "Change" Happen?

Adapted from the Michigan Planner, a publication of the Michigan Association of Planning, Chapter of the American Planning Association, July 2004, page 5.

Problem: Previous failures ("It didn't work then, it won't work now.")
Solution: Learn from failure. Find out why it failed. Can this be fixed? Do the old reasons for failure still exist? Have times, circumstances, or people changed?

Problem: Public resistance, real or perceived ("You can't trust them," or "We don't understand what you're doing.")
Solution: Communicate! Use media and forums. Concisely explain the nature of the situation. Offer a clear vision of ideas. Encourage meaningful public input.

Problem: Differing goals ("We don't want the same things they do.")
Solution: Recognize that each party has multiple interests. Use facilitation techniques and third party "neutrals" to search for common problem definition and goal-setting.

Problem: Patience ("These things take too long!")
Solution: They don't take "too long," they take as long as necessary. Complex problems require complex solutions, and the time to develop them!

Walking Audit

See Photo 5 at left. Walking audits are an excellent tool for helping communities understand what it means to be "walkable, bikeable and pedestrian friendly." Each audit has four parts:

1. A leader (expert in conducting audits, usually a consultant) provides a brief overview, including an examination of problems associated with walking as well as good and bad examples of walking and biking conditions.

2. A community representative (usually staff) describes to participants the "interest area of focus" in the community.

3. The audit participants, along with the leader, conduct a walking tour of the focus area; examine individual problems and discuss them with the community representatives. The leader also discusses observations and/or solutions.

4. A summary is then presented of the session findings along with possible conclusions. Following the walking audit, the leader prepares a written report identifying potential solutions and highlighting recommended next steps.

When doing research for this book, I ran across a book called *Negotiate This!* by Herb Cohen, a negotiating practitioner. To effectively influence change, the single most important skill is the ability to negotiate, and his book teaches you that negotiation is a way to encourage change.

Every day, in countless ways, we communicate with others—whether you are a political leader attempting to persuade, a planning commissioner following regulations, a developer trying to make a buck, or a citizen communicating at a meeting—in attempts to influence behavior. I encourage you to read Herb Cohen's book to learn more about the art of negotiation.

Planners, health professionals, and families—grandparents, parents and young people—can be the catalysts for change. Every person affected by hostile roads must step forward to encourage engineers and decision-makers to design streets in more healthy ways. For personal health benefits, I'm absolutely convinced that it's imperative to build places where people can safely walk and bicycle.

So, I ask you to please join me as I take a journey into neighborhoods, shopping areas, downtown areas and school zones to show you there are better ways to design and build communities.

Chapter 1 Endnotes

[1] For simplification, I have lumped several professions into the term road designers—transportation and traffic engineers, transportation planners, landscape architects and all other transportation professions (such as construction professionals) that are involved in the designing and building of roads.

[2] The American Planning Association (APA) is a non-profit organization with more than 37,000 members nationwide. APA has 46 state chapters, 19 divisions and certifies professional planners through the American Institute of Certified Planners. APA conducts multidisciplinary research projects and provides leadership in the development of vital communities by advocating excellence in community planning, promoting education and citizen empowerment, and providing the tools and support necessary to effect positive change. For more information, visit their website at www.planning.org.

[3] The Michigan Association of Planning (MAP) is a non-profit organization with approximately 5,500 members statewide. MAP exists to promote quality community planning through education, information and advocacy, statewide. For more information visit their website at www.planningmi.org.

[4] *The term "suburban" is of course vague. The word alone is enough to unleash myths. Only a few people have tried to give it concrete expression. Columnist Erma Bombeck noted in the early 1980s: "Suburbs are small, controlled communities where for the most part everyone has the same living standards, the same weeds, and the same number of garbage cans, the same house plans, and the same level in their septic tanks." Russell Baker has added, only partially in jest, that "either America is a shopping center or the one shopping center in existence is moving around the country at the speed of light."* This paragraph was taken from the book called Crabgrass Frontier, The Suburbanization of the United States, page 4.

[5] Although traffic is defined in *A Planners Dictionary,* American Planning Association Planning Advisory Service Report 5xx/5xx, April 2004, pg. 419, as involving pedestrians, ridden or herded animals, vehicles and other devices, either singly or together, that use any street or highway for purposes of travel—*I use the term traffic only when referencing movements by vehicles, such as automobiles or trucks.*

Chapter 2

What is a Walkable Community?

Defining Walkability

WHAT does a walkable community look like? This is probably one of the most important questions anyone should ask before settling down in a community. For example, families with children look for a place to live where kids can play safely and where schools are nearby.

Many corporate leaders looking to open or expand a business look for towns where they and their middle managers want to live. They are looking for places where they want to raise their families. Seniors, as they age and no longer drive, are looking for towns where they might retire one day and not have to drive *every*where for *every*thing.

Healthy communities come in all shapes and sizes, and are found in all regions of the country. Some communities have diverse populations of Asian, Afro-American, Polish, German, Jewish, Hispanic, or gay and lesbian cultures. Other communities have cultures that include a mixture of people with varying ages, abilities and wealth. The common

Photo by Leslie Kettner

Photo 6. Ferndale

A walkable community is a place where people walk and linger. It's a place where people shop and eat and take time to discuss the events of the day. It's a place where people gather for many hours and many days of the year.

thread that brings us altogether is the sense of pride that we have in our homes and in the communities where we live.

Improving the design of streets for people is essential in creating communities that are friendly and livable places. When people are able to walk in and around their communities, it's an indication that the place is safe and secure, comfortable and welcoming, convenient and efficient. Unfortunately, many of our streets (which is most striking in the suburbs) weren't designed with people in mind [1]. By this I mean that when people began to build homes in the suburbs and country areas, road designers built streets for people *in* cars and trucks—not for people who wanted to bicycle or walk safely *along* our roadways.

Photo 7. Holland

A walkable community is a place where people can walk their dogs and visit with friends.

Suburbia – ANYWHERE, USA?

Road to Ruin by Dom Nozzi, pages 25-26

Let's assume that you live in the suburbs, not a remarkable assumption when a survey at the beginning of the twenty-first century found that when Americans move, some 42 percent choose suburban or rural settings, 33 percent who are already there stay there when they move, and only 12 percent move to or stay in in-town settings. (The other 13 percent move from rural to suburban areas.)

Who wants to live in an unsafe, litter-strewn crime-ridden city when all those nice government-subsidized roads make it relatively easy not to?

Still, all that driving eats up a lot of income. The farms and forests you used to drive past on your commute are mostly gone, and rush-hour traffic is terrible. They're *expanding* the mall. Several of your neighbors have been robbed. You hear about drug busts at the high school. You know people—or maybe you are one of them—who keep trying unsuccessfully to transform your lifeless, boring, and sterile residential subdivision into a real community.

What's wrong is that the features of residential suburbs, often perfectly acceptable in outlying areas, destroy the greatest virtue of livable cities—walkability. These include (and the list may seem familiar) segregation, homogenization, and isolation of land uses (miles and miles of nothing but residences); dead-ends and cul-de-sacs; few or no sidewalks; street blocks too long for easy walking; and densities too low for public transit or utilitarian walking.

Walkability-destructive features in the retail and office areas of suburbs include: wide, high-speed roads; buildings set far back from streets and adjacent buildings; large, landscaped buffers, often vine-tangled; randomly placed clumps of trees; one-story "icon architecture" buildings and lots of drive-throughs; glaring, high-intensity lighting on tall, highway-oriented light poles; and lots of signs—big ones.

Most of us—because we usually think of ourselves first as motorists—never stop to realize that many suburban features are designed for the benefit of drivers, and that these same features usually harm our overall quality of life. They are what turns so many suburbs into Anywhere, USA.

Photo 8. Brighton

A walkable community is a place where kids of all ages can exercise in the out of doors in pleasant surroundings.

Photo 11.

A walkable community is a place that welcomes people of all abilities.

Photo 9. Traverse City

A walkable community is a place where kids roller blade and meet friends.

Photo 12. Traverse City

A walkable community is a place where parents and grandparents can share special moments with family members.

Photo 10. Traverse City

A walkable community is a place that is welcoming to people of all ages.

Photo 13. Milford

A walkable community is a place where there is diversity. In many towns, kids playing on skateboards may be told to leave. Walkable communities are tolerant places.

Photo by Bekki Wasmuth

Photo 14. Milford

Taking pleasure in exploring the delights offered by a farmers market makes a street walkable.

Photo by Russ Saying

Photo 15. Traverse City

A walkable community is a place where parents and children can take a relaxing walk past quaint shops, and where kids on bikes can gather to buy ice cream.

Photo by Russ Saying

Photo 16. Traverse City

A walkable community is a place where families can leisurely rest in beautiful settings to discuss the days events. It's also a place where kids can take their first bike ride or venture out on skates.

What Makes a Street Walkable?

Dan Burden (see Foreword), writes in his workshop materials [2] that well designed, healthy neighborhood streets keep the speeds of drivers between 15 and 25 miles per hour. A walkable community provides on-street parking, sidewalks, shade and other services. Streets are as narrow as possible and well connected to offer a variety of walking routes. Traffic on streets is evenly distributed to many different streets versus concentrating traffic on only a few major streets. Streets have views that end with a nice building or garden, and there is plenty of variety along the way. Intersections have tight corners that require low-speeds, yet allow infrequent street users (fire, and sanitation trucks, delivery vehicles, etc.) to make turns by crossing over the centerline.

Ideally, blocks are not longer than 300 to 600 feet. Houses are positioned close to the street with porches and front doors facing the street. Garages are recessed from the front of the house, or hidden altogether by being located on the alley or back of the house. Parks, schools, churches and small shops are found at walkable distances from each residence.

The combined effects of these designs provide an ideal environment encouraging walking, bicycling and a sense of community (see sidebar on page 14). The result of walkable, bicycle-friendly, transit-oriented neighborhoods (see sidebar on page 16) is that many trips by car can be eliminated. The number of cars, their speed and noise are reduced.

By slowing traffic, people find that the front of the house becomes a pleasant place to hang out—in front yards, on porches, along walkways, and on street corners. Increased presence of people, exchanging friendship and knowledge, strengthens the bonds of neighborhoods. In time, parents begin to feel at ease allowing their children to be outdoors more often, and they'll begin to permit

children to walk to their favorite places. This increased activity improves contact throughout neighborhoods and benefits physical and emotional health of children, seniors, and everyone who takes part. This added activity leads to not only safer, but also more secure neighborhoods with many "eyes on the street."

There are many important characteristics that make a street walkable, however, the most important ingredient is people. People like to watch other people—nothing could be more interesting. Walkable places are streets that are designed to be inviting—places that seem to say come, visit me and be entertained. Visit me for a great experience!

Photo by Leslie Kettren

Photo 17. East Lansing

Beautiful sidewalks and trees that provide shade are inviting places for people to walk. Here we see a variety of businesses and short blocks between streets.

Photo by Dan Burden

Photo 18. Brighton

A walkable street is a street where families can cross the street safely.

Photo by Russ Soyring

Photo 19. Traverse City

A walkable street is where people can bike or walk the dog, or sit casually to talk.

Photo by Russ Soyring

Photo 20. Traverse City

These children are enjoying their morning walk to school. Safe and friendly places make a street walkable.

Photo by Dan Burden

Photo 21. Birmingham

Convenient parking and buildings that are close to the street are interesting places to walk.

Sense of Community

Definition

From A Planner's Dictionary, page 350.

Sense of community (also called a "sense of place") is what makes a place readily recognizable as being unique and different from its surroundings and provides a feeling of belonging to or being identified with that particular place.

Loss of Sense of Community

From Crabgrass Frontier, page 278

"New attitudes toward leisure and especially the establishment of the home as a self-sufficient entertainment center have contributed to the weakening of the 'sense of community' in metropolitan America…

The real shift, however, is the way in which our lives are now centered inside the house, rather than on the neighborhood or the community. With increased use of automobiles, the life of the sidewalk and the front yard has largely disappeared, and the social intercourse that used to be the main characteristic of urban life has vanished. Residential neighborhoods have become a mass of small, private islands; with the back yard functioning as a wholesome, family-oriented, and reclusive place. There are few places as desolate and lonely as a suburban street on a hot afternoon…

The [front porch] was a place for observing the world, for meeting friends, for talking, for knitting, for shelling peas, for courting, and for half a hundred other human activities. The front porch was the physical expression of neighborliness and community… When the automobile appeared, however, the slow-motion world of the front porch began yielding to a new pace…

[Air-conditioning] has seduced families into retreating behind closed doors and shut windows, making sidewalk society obsolete and altering the country's character and folkways… No longer forced outside by the heat and humidity, no longer attracted by the corner drugstore, and no longer within walking distance of relatives, suburbanites often choose to remain in the family room. When they do venture out, it is often through a garage into an air-conditioned automobile. Streets are no longer places to promenade and to meet, but passageways for high-powered machines… The front yard, the porch, the street, and the corner grocery [have] insignificant roles in the new private environment."

Photo by Dan Burden

Photo 22. Brighton

Water and beauty are what makes this place walkable.

Photo by Leslie Rettren

Photo 23. Ferndale

Places where people can sit and rest while visiting with friends makes a street walkable.

Photo by Leslie Kettren

Photo 24. East Lansing

Water and a convenient bicycle stand makes a place walkable.

Photo by Leslie Kettren

Photo 27. Milford

Friendly neighbors and friendly neighborhoods are one of the characteristics of a walkable community. Neighbors caring about each other.

Photo by Trudy Gallo

Photo 25. Charlevoix

Flowers and shade trees line the sidewalks making downtown shopping enjoyable, even when the temperature rises above 90ºF. Who wouldn't want to walk here?

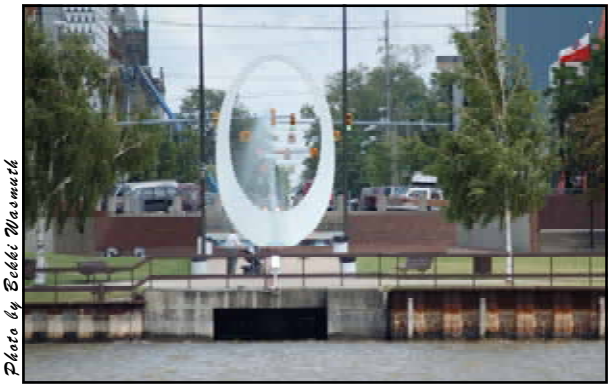


Photo by Bekki Wasmuth

Photo 26. Bay City

This magnificent sculpture sits in the downtown along the waterfront. A "people attraction", it can be seen on both sides of the river by walkers, cyclists, drivers and boaters.

Photo by Dan Barden

Photo 28. Holland

Public art makes walking along a street interesting.

Photo by Bekki Wasmuth

Photo 29. Milford

Enjoying unique public art and a waterfall can be an enjoyable destination when taking a walk.

Photo by Bekki Wasmuth

Photo 30. Bay City

Open spaces for play and recreation are important ingredients for what makes a street walkable.

Photo by Leslie Kettren

Photo 31. Imlay City

Enjoying a parade makes a street more walkable.

Transit-Oriented Development

A Planners Dictionary, American Planning Association Planning Advisory Service Report 5xx/5xx, April 2004, page 423.

Transit-oriented development areas are places that are within a one-quarter- to one-mile radius of either public or private streets identified by officially adopted maps and ordinances as having the location, mix of densities, mix of uses, and development patterns that can generate sufficient ridership to support a frequent and consistent level of bus service, trolley stops, and/or metro transit station (as typified by a 10- to 15-minute frequency of service).

Crabgrass Frontier
Kenneth Jackson, page 120

I also found this interesting tidbit about the value of land (in 1932) when it was located near transit.

"As the Massachusetts Street Railway Commission noted in 1918: *It is a well known fact that real estate served by adequate street railway facilities is more readily saleable and commands a higher price than real estate not so served."*

According to Kenneth Jackson, the quote above is from Edward Mason who wrote The Street Railway in Massachusetts: The Rise and Decline of an Industry (Cambridge, 1932).

Photo by Dan Burden

Photo 32. Birmingham

Amenities such as this waste container for doggie "doo-doo" makes a street more walkable.

Photos by Leslie Kethen

Photo 33. Detroit

Photo 34. Detroit

Photo 35. Detroit

Photo 36. Detroit

City of Detroit

Enjoying a festival makes a street walkable. During the Detroit Festival of the Arts held on the campus of Wayne State University, children experience the wonder of Box City. Box City has been a part of the Detroit Festival Children's Fair for over eight years.

Box City

Box City is an experience that teaches parents and children how cities are planned, or not planned. Created by the Center for Understanding the Built Environment (CUBE), Box City is used to show children what makes a quality city and how citizens can participate in the planning and design of their home town.

Volunteers staff Box City and act as city planners, developers, architects, community activists and even the mayor, and guide the participants in designing their ideal city. Children of all ages participate, along with many adults, by getting a building permit for what they want to place in the city. These permits have to be approved by the mayor, and then the children will be "issued" their building permits.

The buildings are made from specially designed cardboard boxes supplied by CUBE, which the children then design using construction paper, crayons, glue, and their own imagination. With the help of one of Box City's urban planners, the children's buildings will be placed on a city grid based on the appropriate use of the structure.

For more information, visit the website of the Center for Understanding the Built Environment at www.cubekc.org.

Photo by Dan Burden

Photo 37. Dimondale

Stopping to rest, reading the paper or "downing a cold drink" in a pocket park makes a street walkable.

Photo by Dan Burden

Photo 38. Eastpointe

Safe neighborhoods are places where people care about their neighbors. It's a place where there are many "eyes on the street." These are the things that make a street walkable.

Decay is Common in Inner Cities

Crabgrass Frontier, Kenneth T. Jackson, page 285.

"The negative results [decay] of the urban cycle are the stripped automobiles, burned-out buildings, boarded-up houses, rotting sewers, and glass-littered streets that are common in so many of America's inner cities."

Exhaust Fumes Are Unpleasant

Walking and smelling exhaust fumes along a congested road or, being scared silly to walk along a busy street where there is no sidewalk is not a pleasant experience. Nobody wants to be in a place where cars whip by so fast that you're blown off your feet. When communities are poorly designed, outdoor recreational activities such as walking and bicycling are uninviting, dangerous and unhealthy.

People Would Rather Drive

Besides not wanting to walk in areas where you feel unsafe, there are three main reasons why people would rather drive than walk or bike.

First, the streets are designed for people who drive, not for walkers and bicyclists. Second, most suburban areas lack a "sense of place"—in other words, interesting and unique places where people want to walk. And third, oftentimes everything is just too spread out to make walking practical.

In order to get folks to walk, a community must be built somewhat compactly and in an attractive manner. If each business or home were 200 to 300 feet apart, I doubt that anyone would walk very much, except for an occasional stroll.

Also, have you noticed that sheer boredom sets in if it seems to take forever to get somewhere? Wide buildings, blank walls with no interesting windows and mundane parking lots are real turn-offs to walking. Boredom sets in quickly and it doesn't take long before a person feels it's too far to walk to the neighborhood store. Walkers need to be entertained every step of the way.

For example, do you like walking in places where the only distraction is the grille on the front end of a car in a parking lot? The only way I would enjoy a walk like that is if the grille I was looking at was on an antique car! The more you are entertained,

the more you are willing to walk.

Walt Disney knew this when he first built Disneyland over 50 years ago. We can learn from the size of buildings and open spaces that he designed. Disney kept you interested because he always built something just a few steps away and around each corner. My point here is that people will walk if they're interested in the scenery. In fact, I'd say that people would rather walk, if the experience was enjoyable and interesting—and safe.

Of course, the walk will be safe, if the route is filled with people. A Toronto planner once said something like—*if you're in an area that isn't congested, it's a place you probably don't want to be in* [3].

Absence of People is Decay

People bring vitality, excitement and interest. The absence of people brings decay, neglect and apathy. The following photos show areas of failings, fatigue and offense. These areas have been abandoned by those who were able to move to suburbia—to experience the "American Dream." Note the litter, broken buildings, graffiti and lack of people. Few people live here. Few people walk here. Would you?

Photo 40. Detroit

Photo 41. Saginaw

Photo 39. Saginaw

Photo 42. Flint

Photo by Bekki Wasmuth

Photo 43. Detroit

Photo by Bekki Wasmuth

Photo 44. Detroit

Health Experts Say...

Professional health experts have declared daily exercise in any form can lead to a longer and more enjoyable lifestyle. Health experts also point out that the physical activity doesn't need to be long and strenuous. The exercise can be a casual walk to a local convenience store, a bike ride to a neighborhood park, or roller-skating around the block. However, it's hard to walk or bicycle along any street that is intimidating by the presence of fast moving cars, by decayed conditions or where shops and homes are isolated and far apart. Convenient places for walking and attractive sidewalks and trails provide the links that connect people to places.

Convenient and attractive sidewalks and trails provide the incentive for people to get

Photo by Bekki Wasmuth

Photo 45. Howell Township

This stretch of Grand River Avenue is flat, has straight, wide traffic lanes and fast speeds. Walking and bicycling is discouraged in this area because there are no sidewalks or bicycle lanes, yet there are numerous subdivisions and shops near by. Why do you think community leaders have not made improvements for walkers?

Here is my answer—All shops and other uses found along this stretch of roadway are spread out. So even if there were sidewalks, few people would choose to walk here because of the distance between uses. The bland environment makes walking impractical and boring. If people wanted to walk to these businesses, they can't do so safely. AND unfortunately, if sidewalks aren't required when these businesses are first built—when all the vacant space eventually fills in—there still will be no sidewalks unless the community gathers the courage to require it.

Photo by Leslie Kettren

Photo 46.

Instead of computer time, we should spend more time outdoors. Too much sitting indoors causes a condition called "couch potato". A major reason why people don't exercise is because many communities are built so that buildings are isolated (not close enough to each other for an interesting and safe walk) or lack convenient and attractive walkways.

Definition of a Walkable City

Crabgrass Frontier, pages 14-17

In 1985, Kenneth Jackson defined a walkable city using five characteristics of early European and American settlements:

1. "The first important characteristic of the walking city was congestion…Lot sizes were small (usually less than twenty feet wide), streets were narrow, and houses were close to the curb…
2. The second important characteristic of the walking city was the clear distinction between city and country…there was no blurring of urban-rural boundaries, and there were no signs announcing the entrance of a traveler into a community. Before the age of industrial capitalism a sharp-edged dot on the map was an accurate symbol for a city. It stood for a site of political and economic power inhabited by a small, specialized part of the total population of any region. There was an obvious visual distinction between the closely built-up residential precincts of a city and rural sections surrounding it, and there were no fast food restaurants, motel, and service stations stretching far along the radial highways.
3. The third important characteristic of the walking city was its mixture of functions… there were no neighborhoods exclusively given over to commercial, office, or residential functions… Public buildings, hotels, churches, warehouses, shops and homes were interspersed, or often located in the same structure.
4. The fourth important characteristic of the walking city was the short distance its inhabitants lived from work… Because the business day was long, and because any distance had to be overcome by a horse or foot, there was a significant advantage in living within easy walking distance of the city's stores and businesses. Work and living space were often completely integrated, with members of the family…literally living above or behind the place of employment.
5. The final important characteristic of the walking city was the tendency of the most fashionable and respectable addresses to be located close to the center of town… To be a resident of a big town was to enjoy the best of life, to have a place in man's true home. To live outside the walls, away from palaces and cathedrals, was to live in inferior surroundings."

Photo by Dan Burden

Photo 47. Brighton

Even though Brighton has built sidewalks along this section of Grand River Avenue, would you enjoy walking here? The buildings are set far apart and few trees shade the sidewalk. It's very windy here because traffic whizzes by too fast and the smell of exhaust fumes fills the air.

out of the house, away from their computers and television sets, and exercise.

Quite frankly for these reasons, people are no longer walking and biking on a regular basis. And consequently, there's a lack of physical activity. This situation is contributing to poor health and that's *really* becoming a concern nationwide.

So how did we get to this point? In the next chapter I discuss the historical perspective of why our roads and communities are built the way they are today.

Chapter 2 Endnotes

[1] Perhaps Clay McShane describes it best (i.e. communities are not designed for people) in his book Transforming the Use of Urban Space (page 300), *"Thus, in their headlong search for modernity through mobility, American urbanites made a decision to destroy the living environments of 19th century neighborhoods by converting their gathering places into traffic jams, their playgrounds into motorways, and their shopping places into elongated parking lots. These paving decisions effectively made obsolete many of urban America's older neighborhoods."*

[2] The following information was taken from the workshop booklet called *Walkable Communities Designing for Pedestrians*, a joint effort by Walkable Communities, Inc. and the Southeast Michigan Council of Governments, September 1998.

[3] When Russ Soyring, planning director for the City of Traverse City, was reviewing the book, he gave me the two bits of information about Disney and the Toronto planner. I thought it helped to illustrate my point so I included his comments almost verbatim.

Chapter 3

Historical Perspective

What Happened?

TOWN planners, decision-makers and road designers used to know how to design and build livable and walkable communities. The shape and livability of communities began to change after World War II. Why did this happen? What changed?

During the 1950s, more people were able to buy cars and it was easy to get funding to build that dream house in the country. To meet these demands, the highway system was expanded and by 1980, most of the road systems in our communities had already been built. In order for cars to drive fast, road designers focused on fewer streets and fewer intersections. This type of road design allowed people to drive faster. Unfortunately, cars as well as people had to share the same roadway. It's not hard to guess who lost out in the struggle for a share of the road. Today, by the very way our roadways are designed and built—walking and bicycling is discouraged.

Many questions need to be answered. What was happening in our communities when they were developing in the 1950s until now? Why were roads built the way they are? Why is there a lack of roads that are well designed and why aren't roads built to benefit all types of transportation? How did we end up with such a gold-plated system for our cars and trucks, yet create such a fractured-plastic system for walking, bicycling and transit [1] ? Why are roads today built to accommodate travel by cars rather than for people who want to walk and bicycle?

Road designers, as always, should be very concerned about safety, but they have a responsibility not to use safety as an excuse to avoid consideration of designing roads for all people—drivers *and* walkers *and* bicyclists.

The Automobile is "King" in Michigan

Today in too many communities there's a lack of walking and bicycling routes. It's quite obvious, even to the casual observer, that in Michigan the automobile is treated as "King" of the road [2].

Humorous Car Regulations—in the early days

Streets and the Shaping of Towns and Cities by Michael Southworth and Eran Ben-Joseph, page 57

When the automobile first began to travel on streets, there was early resistance by some. Perhaps the wildest of the early laws and ordinances to regulate automobile drivers was drawn up by the Anti-Automobile Society, formed in Pennsylvania when the problem was first coming to the fore.

There the farmers decided that anyone driving a horseless carriage at night should come to a stop every mile and send up a signal rocket, then wait 10 minutes for the road to clear.

If a team of horses should approach along the road, the motorists was obligated to pull off the road and cover his vehicle with a large canvas or painted cloth that would blend with the surrounding landscape. If the horses refused to pass even then, the motorist had to take his vehicle apart piece by piece and hide the pieces under the nearest bush.

Because the car takes priority as the primary mode of transportation, Michigan roads are often overbuilt with designs that are wider, straighter and flatter for faster speeds. After all—and I hear this time and time again from road designers that I have talked with—they believe that is what the public wants! But do they really?

Automakers built fast cars because of pressures from the public—and consequently road designers build streets to accommodate those fast speeds because of public pressure, but also because they fear being sued. Unfortunately, rarely do road designers look beyond the edges of the roadway to investigate how their designs affect communities—in particular neighborhoods and shopping areas.

Rush, rush, hurry, hurry—and road designers listened to the rushed and hurried public and our roads were built like congested racetracks. Over the years, there were many corrective actions and false starts to correct "problems" caused by cars which were well intentioned, but each action only further reduced our ability to walk [3].

For example, many streets were turned into one-way streets or the streets were widened for increased speeds to handle more and more cars. Consequently, our neighborhoods and downtown shopping areas became scary places for people who were walkers or bicyclists—scary places for the young, the old or any age in between.

Photo by Bekki Wasmuth

Photo 48. Highland Township

This photo was taken in a suburban area near an elementary school. Even though the sign indicates where the road should be crossed, would you let your children walk here? The street has no tree canopy for shade, no sidewalks, and is not marked well to alert drivers that this is a crosswalk. Cars whiz by, driving well over the speed limit. The road is bland and built like a racetrack—straight and flat. This is truly a scary place for children to walk—let alone for adults! People with disabilities would not even consider it.

Culprit is Sprawl

According to Michael Lewyn [4], city and urban were not always "dirty words" in America. American cities have been transformed by (and sometimes ruined by) suburban sprawl—the movement of people and jobs away from older urban cores to newer, more thinly-populated, auto-dependent areas known as suburbs, whether they were within city limits or not.

When urban sprawl began in the 1950s, housing developments in the suburbs began popping up like mushrooms. Communities generally didn't require sidewalks in developments because people wanted subdivisions to remain rural looking.

At the same time, road designers built neighborhood streets so that drivers could drive faster to reach their next destination quicker. This meant building roads that were wider, straighter and flatter. This was primarily so that people could get to and from their jobs in a hurry, and also for people to drive to regional shopping centers in a hurry. In the land of suburbia, rarely is anything convenient—everything is a 10-minute or more drive away!

Some people still deny that wider and faster highways have contributed to and in *(continued on page 28)*

Definition of Urban Sprawl

The Michigan Planner, a publication of the Michigan Association of Planning, September, 1995

In 1995, the Michigan Association of Planning, A Chapter of the American Planning Association, defined urban sprawl as a low-density land use pattern that is automobile dependent, energy and land consumptive, and requires a very high ratio of road surface to development served.

Sprawl is widely considered to be an undesirable pattern of land development which is largely related to its impacts on farmland and open space, the high long-term cost of public facilities and services associated with low density development, and its relationship to a host of central city woes.

In contrast, a compact settlement pattern is considered to be positive, because it preserves farms and forests, is efficient to serve, and promotes redevelopment and repopulation of cities.

Photo by Leslie Kettren

Photo 49. Rochester Hills

Does this look like its safe for walking? This family must walk in the street because the subdivision where they live was built with no sidewalks. Was the decision to build without sidewalks because of hopes to remain rural, or was it to save a buck by the developer?

Photo by Dan Barden

Photo 50. Flint

Urban sprawl has had effects that are long lasting. In cities such as Flint, Ferndale, Clawson and Detroit (and others too numerous to list), schools have closed because districts lost large numbers of students—too many families have moved out of the city to the suburbs. The Livonia Public School District just announced in late 2005 that they were closing seven schools because the district has lost over 1,500 students since 1995. And so it goes...

Photo by Bekki Wasmuth

Photo 51. Flint

Here we see a neighborhood street that is poorly maintained. There is just not enough money to go around. We cannot afford to maintain existing roads when new roads are continually being built in communities that service new developments.

Photo by Bekki Wasmuth

Photo 52. West Bloomfield Township

New roads are being built to accommodate new development— leaving little money left for keeping existing roads in good repair. Remember that the next time you land in a pothole!

Photo by Dan Burden

Photo 53. Anywhere, U.S.A.

(left) This commercialized stretch of roadway is a photo of sprawl at its worst. Wide streets, fast cars, many signs and no trees are all indicators of urban sprawl. Unfortunately, this shopping area lacks a sense of place and it does not make shoppers feel welcome. This could be a photo of Anywhere, U.S.A. Would you want to walk here?

Characteristics of Sprawl

Costs of Sprawl—Revisited, a report from The Transportation Research Board National Research Council, 1998

The Cost of Sprawl—Revisited states that the characteristics of sprawl are:

1. Low residential density (usually far more residential than nonresidential).
2. Unlimited outward extension of new development.
3. Spatial segregation of different types of land uses through zoning regulations.
4. Leapfrog development.
5. No centralized ownership of land or coordinated planning of development.
6. All transportation dominated by privately owned motor vehicles.
7. Fragmentation of governance authority over land uses between many local governments.
8. Great variances in the fiscal capacity of local governments because the revenue-raising capabilities of each are strongly tied to the property values and economic activities occurring within their own borders.
9. Widespread commercial strip development along major roadways.
10. Major reliance upon the filtering or “trickle-down” process to provide housing for low-income households.

Homebuyers Favor Short Commutes, Walkable Neighborhoods

This article was taken from the GALIP Gayzette, A Division of the American Planning Association, Fall 2004 issue, page 3.

The prospect of lengthening commutes is leading more Americans to seek walkable neighborhoods in close-in suburbs and cities, according to the 2004 American Community Survey sponsored by the National Association of Realtors and Smart Growth America. The survey found that a commute time of 45 minutes or less is the top priority in deciding where to live for 90 percent of Americans.

Other top priorities included easy access to highways, important to 75 percent, and having sidewalks and places to walk, important to 72 percent. Having a large house on more than one acre of land was important to 57 percent of Americans.

Minorities are even more likely than other Americans to choose a walkable neighborhood that has a shorter commute, with 59 percent of women, 57 percent of Hispanics and 78 percent of African-Americans selecting those communities over communities with bigger lots and longer commutes.

After hearing detailed descriptions of two communities, Americans favored the attributes of walkable, smart growth communities over sprawling communities with longer commutes 55 percent to 45 percent.

"As communities around the country grow, they're faced with the choice of where, and what, to build next," said Don Chen, executive director of Smart Growth America. *"In too many places, the choices are being made for them by a system of out-moded regulations that makes it hard to build great affordable neighborhoods in the places where people need the housing, and easier to do it in distant locations. The survey makes clear that this must change if we are to meet this growing demand."*

Americans place a high value on limiting their commute times and are more likely to see improved public transportation and changing patterns of housing development as the solutions to longer commutes than increasing road capacities [widening roadways]*. Half of all Americans chose improving public transportation as the best option to solving long term traffic problems.

Americans also want government and business to be investing in existing communities before putting resources into newer communities farther out from cities and older suburbs.

The survey was conducted by Beldon, Russonello & Stewart among 1,130 Americans from August 26, 2004 through September 6, 2004. The margin of error for the survey is plus or minus 3 percentage points. The complete survey information can be found on-line at www.smartgrowthamerica.org.

* *Parenthesis is by the author.*

some cases caused urban sprawl. Others, perhaps a little more enlightened about the design of these types of roads, support the viewpoint that "if you build it, *(unfortunately)* they will come".

Occasionally I hear that people would have moved to the suburbs anyhow, and that the movement of people to the suburbs (who live near those faster and wider highways) is just a coincidence. To believe that argument, you have to believe that every single person who moves to some suburb near a major highway would still live there if their commute was going to be on two-lane gravel roads—obviously an absurd premise [5].

My purpose in writing about urban sprawl is to show that sprawl has had an influence on the way communities and neighborhoods have developed. While there are some people who truly enjoy living in this environment, there are many others who would prefer to walk to school, bicycle to work, or simply spend less time in the car [6].

Sprawl is partly the result of the free market at work, but sprawl was in large part created by government interfering with the economy [7]. Government has encouraged the migration from cities to suburbs, and newer areas through housing, transportation and education policies. There are many books written about each one of these topics. My focus, however, will remain directed toward transportation policies.

Here's An All Too Familiar Scenario...

Road to Ruin by Dom Nozzi, page 21

I'm late for an appointment and I need to get into the city fast. First, I'm stuck at the entrance to my subdivision by rush-hour traffic crawling past.

Then I get behind two cars side by side, both irritatingly driving the speed limit. I'm impatient, and so is everyone behind me. When I finally squeeze past, I race to make up for the slowdown.

In my rearview mirror, I see the guy behind me gesturing rudely at the law-abiding drivers as he rockets past. When I get to my appointment, I curse as I careen around the parking lot in search of a space.

Is this road rage? No, just an average commuting day.

Clearly, we need to six-lane that road so the loafers can have their own lane, and this parking lot needs to be bigger.

I need to call my county commissioner and tell her to start earning those big bucks we pay her...

Besides driving up our blood pressure and emptying government coffers, congestion purportedly leads to poor energy efficiency, higher gasoline consumption, and more air pollution.

Photo by Dan Burden

Photo 54. Eastpointe

This is an example of sprawling development near a residential area. Wide and straight streets that look like a race track—built for fast cars. No shade trees. No interesting shops or landscaping. Isolated buildings separated by huge expanses of concrete. Why would you want to live where you're dependent on the car for everything to do anything? Would you want to walk here?

A Lot Happened Over the Past 50 Years

During the last 50 years, federal transportation policies have encouraged this suburban migration.

This is how it happened—Federal Departments (quite often) are at cross-purposes with one another—or to put it another way—the right hand doesn't always know what the left hand is doing. The Feds put policies in place after World War II so that people could cheaply own their homes and buy new automobiles. These policies caused people to move out of the cities—it was the "American dream to live in the suburbs".

Here is just one example of a misguided policy. After World War II, returning GI's were given *very* affordable housing loans if they bought properties in the emerging suburbs. However, they were denied loans if they wanted to buy older, more convenient housing in the center city.

The majority of government spending, at all levels was focused on building new roads for newer communities, rather than spending money on maintaining the roads that already existed. The building of new roads led to new housing and new commercial development—primarily outside the city limits in rural areas.

After people relocated to the suburbs, commercial and office centers moved to the suburbs to be near the people. Strip malls began to clutter-up the views along roadways. Farm fields in nearby rural areas soon began to "grow" houses and soon looked like subdivision heaven.

Residents didn't want these new subdivisions to look city-like, so most people said "NO" to sidewalks and "NO" to compact neighborhoods (density almost became a dirty word at city hall).

Subdivision after subdivision was built, which you can well imagine began to create traffic problems. And naturally, as more people moved into the new neighborhoods,

Interstate Helps Perpetuate a Centerless Sprawl

Crabgrass Frontier, Kenneth T. Jackson pages 249-251.

The Interstate Highway Act became law in 1956, when the Congress provided for a 41,000-mile (eventually expanded to a 42,500-mile) system, with the federal government paying 90 percent of the cost.

President Eisenhower gave four reasons for signing the measure:

1. Current highways were unsafe.
2. Cars too often became snarled in traffic jams.
3. Poor roads saddled business with high costs for transportation.
4. Modern highways were needed because *"in case of an atomic attack on our key cities, the road net must permit quick evacuation of target areas."*

Not a single word was said about the impact of highways on cities and suburbs, although the concrete thoroughfares and the 35-ton tractor-trailers which used them encouraged the continued outward movement of industries toward the beltways and interchanges.

Moreover, the interstate helped continue the downward spiral of public transportation and virtually guaranteed that future urban growth would perpetuate a centerless sprawl...They [freeways] are the primary form of transportation for most residents, who seem to regard time spent in their cars as more pleasurable than time walking to, waiting for, or riding on the bus.

Urban Renewal in Detroit

In the 1950s, the Black Bottom neighborhood, the heart of the local African American community, was demolished to make way for the Chrysler Freeway (I-75).

The Old North End neighborhood, between Grand Boulevard and Highland Park, experienced similar decimation and displacement. The community was split into two sections when I-75 was built, the east side and the west side.

Mexicantown was also split by the construction of I-75. The freeway split the commercial center, so there was now a north side and a south side. When it was first built, there was a bridge over the freeway joining both sides—but it was later demolished because of ramp relocations. This further isolated the Mexicantown community. Today, the south side has been able to rebuild itself, but the north side has not been as fortunate. There is a recent plan to rebuild the pedestrian bridge, thanks to the Mexicantown Community Development Corporation.

Three neighborhoods were impacted by the construction of I-75. After a decade of turmoil by displaced residents, the freeway finally opened to traffic in the mid-1960s.

Photo 55. Midland

There used to be a neighborhood located here. Today you see divided highway with a grassed median and trees. During an urban renewal project, the homes were removed to widen Eastman Road, near the Dow Chemical plant.

Photo 56. Detroit

This photo was taken in July 2004 near Woodward Avenue. Sadly, the American Dream of living in the suburbs encouraged people and viable businesses to move out of the cities—causing decay in areas left behind.

Photo 57. Bay County

(right) Just as some cities are left behind to decay, other communities are faced with sprawling development that "grows" seemingly overnight in former corn fields. This sprawling residential neighborhood is not located near a school, a shopping area or even linked with other neighborhoods. To go anywhere, you must drive.

the more traffic there was. In addition, most suburban homeowners by the mid-1970s were more affluent and so now owned and drove two cars—which increased congestion even more.

Throwing Money at New Roads

So the government likes to throw money at new road projects. So what? Well, road spending has degraded cities in two ways—physically destroying neighborhoods and making it easier for people to move to the suburbs.

The first has physically destroyed city neighborhoods—witness the construction of I-75 (in the 1950s and 1960s) through some of the most viable neighborhoods of Detroit—all under the guise of "Urban Renewal" (see sidebar on page 30).

About the same time as the argument for urban renewal, the National Defense Department was touting that building wide roads through our cities was a quick way to evacuate people in the case of a nuclear attack during the height of the Cold War (see sidebar on page 30). Consequently, many cities have lost healthy, functioning neighborhoods to highway projects.

Sometimes just the threat of building a new road can destroy the viability of a neighborhood. Do you know that a major road can often be studied for 10 to 15 years before actual road construction begins?

Often during that long time period, decay begins to settle upon the neighborhood. For example, banks, insurance companies and other businesses are unwilling to invest in places where roads are proposed to be built through neighborhoods. So, not only will commercial activity begin to fade, but also homeowners are reluctant to spend money on home repairs.

Some owners will become disgusted, while others will become frightened and move out of the neighborhoods. Whatever happens—whether the road is eventually built or

Photo 58. Flint suburb

This is an example of a sprawling strip center along a very busy street in a suburb of Flint. Very nice! However, there are many other centers along this street that look exactly like this one—well maintained, each with a gimmick to invite the shopper to get out of their cars and stop to shop. Welcome to Anywhere, U.S.A.

Photo 59. Flint

This photo shows what happened to a once busy and vital shopping area in downtown Flint. When people moved to the sprawling suburbs, these once grand and proud buildings were left behind to decay.

Photo 60. Flint suburb

This is a typical sprawling subdivision in a suburban area near Flint. Housing in the City of Flint is deteriorating while many suburbs find themselves having to hold two Planning Commission meetings per month to address site plan review issues. Growth is inevitable, but it should not be to the detriment of other communities.

not—the threat of road construction lingers.

The second way, making it easier for people to move to the suburbs, has also contributed to the decay of cities. Highways help to cause sprawl by enabling people to live farther from jobs, convenient services, schools and places of worship. This gives commuters an easier drive to the cities from the once-distant suburbs.

Research shows that wherever residential growth occurs, commercial development follows. Retail and office businesses move to catch up with their customers. Employers move to catch up with their more upscale employees. And the cycle continues – and we keep moving ever farther out.

Bottom Line…

Wider roads were built inside and outside of the cities so that people could drive faster to work from longer distances. Urban streets became scary places to walk as people fled the inner cities—and in the suburbs, subdivisions were being built with no sidewalks or pathways.

No wonder many places today are experiencing what I call a "walkable communities dilemma", or simply stated—people can't safely or easily walk around in their communities.

Uncle Sam didn't take sides when doling out the money, but nevertheless the government contributed to the general decline of the cities and to the general prosperity of the suburbs. Unfortunately, the governments "catch-22-syndrome" policies became well-entrenched in communities. And the situation we find ourselves in today is one in which there is a lack of money and/or will power to correct those past mistakes.

Today there are very good road design and redesign options available, but the cost to make road improvements or build sidewalks—and the leadership to do so—is most often beyond the ability of communities.

Photo 61. Flint

This subdivision was built with no sidewalks because the community wants the look and feel of remaining rural. The neighborhood loses because residents cannot take a walk through the subdivision safely. Developers benefit because they do not have to spend money building sidewalks—which gives them bigger profits. But who really gains and who really loses?

Photo 62. Highland Township

Located about 40 miles northwest of Metro Detroit, Highland Township is under huge pressures to build residential subdivisions as urban sprawl continues its outward path. The Township would like to remain looking like a rural community, so sidewalks are often not required here—thus making it difficult for those who want to run for exercise.

Photo by Leslie Kettren

Photo 63. Milford

The Milford Village Council tried to address the "rural look" they thought residents wanted and still have sidewalks by requiring the developer to build this unsatisfactory compromise. The line painted on the street is too narrow to allow two people to walk side-by-side. Walkers are still in the street and too close to passing traffic. And as you can see, the line changes over time. I wonder if they would let their children walk down this "sidewalk" by themselves?

Photo by Leslie Kettren

Photo 64. Milford

Contrast this photo with the one above. One community, yet two different kinds of streets. The two pictured here are having a "Kodak moment" in the front yard. To bad the people in the photo above don't live on the same kind of walkable street.

Chapter 3 Endnotes

[1] Transit means the movement of persons or goods from one place to another by means of a local, public transportation system such as: Commuter rail, rail rapid transit, light rail transit, light guideway transit, express bus, local fixed route bus, high-speed mass transit. *A Planners Dictionary*, American Planning Association Planning Advisory Service Report 5xx/5xx, April 2004, page 422.

[2] The car is of *huge* importance to the overall economy in Michigan. However, road designers have catered to the needs of the car over the needs of people for years, particularly after World War II. In 1940, a Denver Planning Commissioner suggested that *"streetcars be removed from major thoroughfares because they delay the faster vehicular traffic."* Around the same time in history, the Detroit chairman of the Rapid Transit Commission stated that: *..."the automobile is the magic carpet of transportation for all mankind."* The misguided and unfortunate result of such thinking [cars are "King" of the road—statement inserted by the author] was that Americans would no longer have transit options and that the car would become a prerequisite to survival, with disastrous consequences for energy consumption and traffic deaths. Far from supplementing electric-rail systems, the automobile became the single form available, and the suburbs became abjectly dependent on a vehicle that demanded ever-larger resources in terms of street space, parking facilities, and traffic patrols. Information taken from Crabgrass Frontier: The Suburbanization of the United States, Kenneth T. Jackson, page 171.

[3] In the past, the ability to walk and bicycle was of little concern to road designers. The standards of the Institute of Transportation Engineers "*have widely been used as the basis for subdivision regulations by local agencies and public works departments. It is remarkable how a simple handbook could have such impact on the way cities are built, and how little questioning and evaluation has been involved in their adoption...the solution they provided was presented as absolute and indisputable, leaving little room for new design approaches. Within the engineering profession, there seems to have been little awareness or concern with the huge impact these construction standards were having on the American landscape and the quality of neighborhoods."* This is a quote from the book Streets and the Shaping of Towns and Cities, page 96.

[4] Michael E. Lewyn is a columnist, author and associate professor at John Marshall Law School in Atlanta. Some of this information was taken from a speech that he gave in August 2001, during the Smart Growth Speaker Series at the National Building Museum in Washington, D.C.

[5] This information was taken from an article in *The Green Elephant*, volume 6, Number 1, Summer 2002, page 4.

[6] Some of the text in this paragraph was adapted from the book called Suburban Nation, The Rise of Sprawl and the Decline of the American Dream, pg. 20

[7] Although the federal government encouraged long-range housing policies...it was its financial mechanism that shaped the new built environment...The [Federal Housing Administration] FHA financial assistance and mortgage insurance was the foundation for the most ambitious suburbanization plan in U.S. history." This quote was taken from The Rise of Sprawl and the Decline of the American Dream, page 26.

Chapter 4

Recognizing the Symptoms of Failure

IN many communities (particularly in the suburbs), there is a lack of places where people can bicycle or walk. Green places are needed to increase recreational opportunities and add beauty to our lives. Sidewalks and bicycle lanes are needed to encourage people to be active. Well-built places encourage exercise, which helps to build healthy bodies.

All of these places are needed to help people relieve the stresses of life. There is a need for people to enjoy life and not be saddened by the many warning signs of failure.

Photo by Dan Burden

Photo 65. Grand Ledge

Lack of sidewalks in a neighborhood is a symptom of failure. It's a lovely place, but not many people walk here.

Photo by Dan Burden

Photo 66. Eastpointe

Places with huge expanses of concrete, large signs and barren landscapes are symptoms of failure.

Photo by Dan Burden

Photo 67. Grand Rapids

Poorly maintained concrete are symptoms of failure. People who are disabled cannot walk safely on sidewalks that are in poor repair. Those in wheelchairs have a great deal of difficulty navigating over crosswalks that have no barrier free curbs. When urban areas are abandoned by those who pursue the "American Dream", decay sets in.

Photo by Dan Burden

Photo 68. Eastpointe

Lack of buffers such as planting and nature strips, understated and under-whelming landscaping with few street trees are symptoms of failure—people like more green!

Photo by Trudy Gallo

Photo 69. Traverse City

Excessive signage is a symptom of failure.

Photo by Dan Burden

Photo 70. Grand Rapids

With no "eyes on the street", this neighborhood has decayed to the point where no one wants to walk here. Tired, neglected and unsafe places are a symptom of failure.

Photo by Dan Burden

Photo 71. Eastpointe

Buffers are symptoms of success. A buffer is a strip of land, a fence, or border of trees, etc., between one use and another, which may or may not have trees and shrubs planted for screening purposes. The buffer is designed to set apart one use area from another, such as the parking lot from the sidewalk—and the sidewalk from the street.

Photo by Dan Burden

Photo 72. Lansing

Attitudes of "build it cheap" is a symptom of failure.

Photo by Dan Burden

Photo 73. Webberville

Poorly located schools, post offices and libraries are symptoms of failure. The post office pictured here is so far away from any neighborhood that the only way people can conveniently get to the post office is to drive.

Quicker Response is Needed for Symptoms of Failure...

Islamic Group Will Accept Traffic Plan
Members Had Campaigned for Light in Front of Mosque

Tom Ganter, Ann Arbor News, Monday, July 5, 2004, www.annarbornews.com

The president of the Muslim Community Association says he will reluctantly accept a city recommendation to add a traffic light at the intersection of Traverwood Drive and Plymouth Road in Ann Arbor [Michigan], although his group has campaigned for one in front of its mosque.

Abdalla Naser said he will trust the city's recommendations for the traffic safety improvements for now but that may change if they don't prove to be effective.

Naser said most board members of the Muslim Community Association don't agree with him but are willing to support his decision.

The Muslim Community Association has asked the city for years to install a traffic light in front of its mosque and school at 2301 Plymouth Road. Traverwood Boulevard is about 200 yards from the Islamic Center.

"Without the traffic light at Traverwood, we would not support this plan whatsoever," Naser said. The City Council is expected to approve the plan at its Tuesday meeting.

It would end nearly seven months of debate and analysis about how to improve safety for pedestrians on that stretch of Plymouth Road. Two University of Michigan students - Teh Nannie Roshema Rolsan and Norhananim Zainol, both from Malaysia—were killed while crossing the five-lane road last November after leaving the mosque.

The city's original recommendation in April was to add the new traffic signal at Traverwood Drive when the traffic counts were high enough to meet state standards. But in a letter to Naser, City Administrator Roger Fraser wrote that the light would be installed within 12 months after the approval by the City Council.

City Council Member Bob Johnson, D-1st Ward, said he wanted the light installed as quickly as possible even it if didn't meet the state's traffic volume guidelines. "When this comes up, I would put up a resolution that it doesn't matter if it is warranted, we want to put it up," Johnson said.

The city also plans to build raised medians, refuge islands, pavement marking for new 11-foot-wide traffic lanes and reduce the speed limit to 35 mph on that stretch of road.

Those are all part of a series of improvements designed to increase safety for pedestrians that the city hopes to complete within a year.

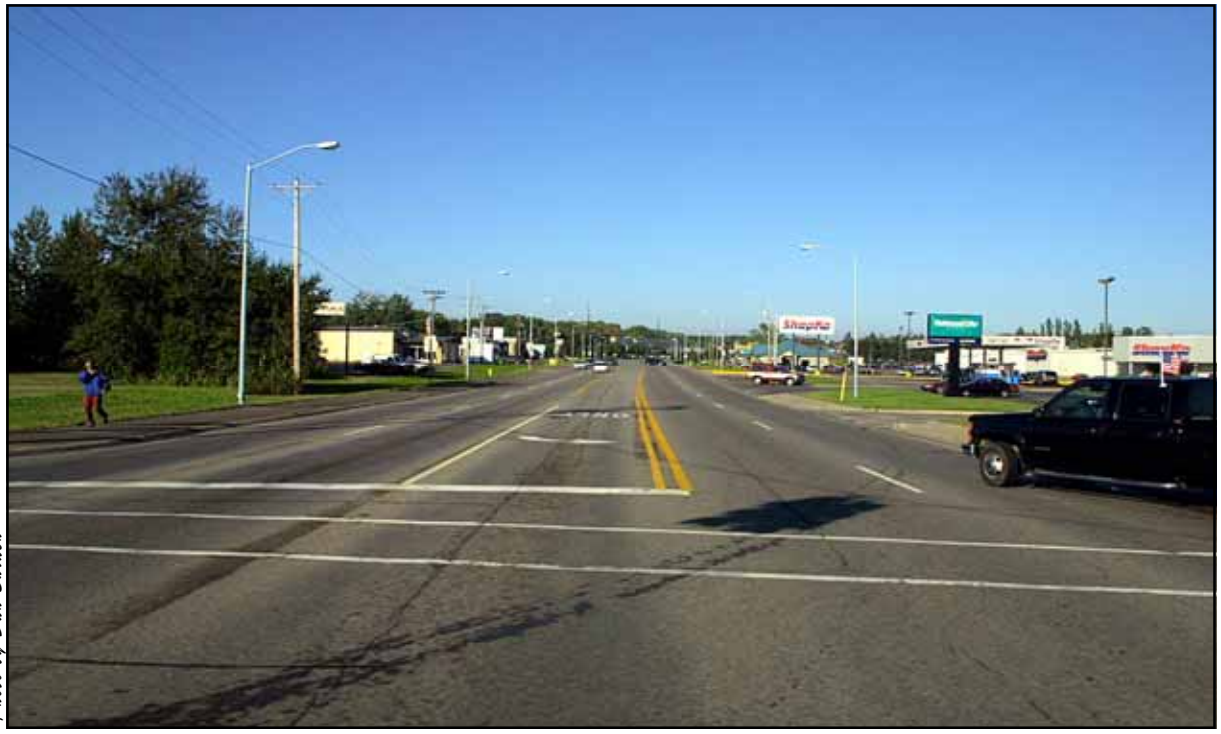


Photo by Dan Burden

Photo 74. Marquette

This is 5 lanes of schlock! Over use of wide streets is a symptom of failure. The desire for streets to carry greater numbers of cars—road designers call it "unimpeded flow"—has resulted in wider streets. While travel lanes on old streets (before the 1920s and 1930s) were often only 9 feet wide or less, new streets are usually built to have 12-ft. lanes, which takes longer for walkers to cross. "Unimpeded flow" also has another meaning—license to speed—adding all the more to unsafe walking conditions.

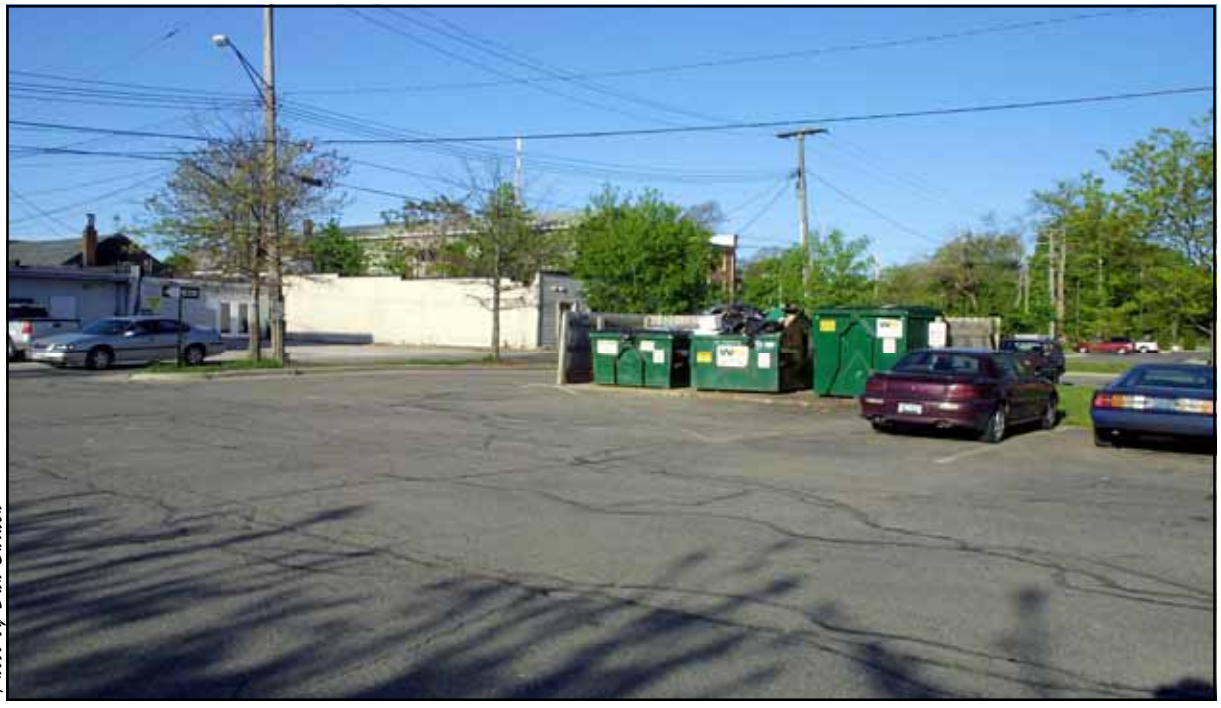


Photo by Dan Burden

Photo 75. Brighton

Failure to screen garbage and "dress up" parking lots is a symptom of failure.

Photo by Leslie Kettren

Photo 76. Lansing

Shops are within sight, but walking over a sea of hot asphalt to reach a store is a symptom of failure. Can you imagine walking here while battling raw winter winds?

Photo by Dan Burden

Photo 77. Brighton

A symptom of failure is when stores are in sight but for safety reasons—like too much traffic or the street is too wide—it is difficult to walk there. Instead of a simple walk of 100 feet, most people climb into the car and drive across the street, adding to more traffic. No wonder people are gaining weight!

A Symptom of Failure—Wide Streets

Fire Departments Demand Wide Streets

Suburban Nation, The Rise of Sprawl and the Decline of the American Dream, page 67.

When fire departments are allowed to usurp the role of the town planner, they generally commit two errors.

First, they put more weight on fire rescue than on the prevention of injury. They try to minimize emergency response time, without considering that the resulting wide streets lead to an increased number of traffic accidents, since people drive faster on them.

Fire departments have yet to acknowledge that fire safety is but a small part of a much larger picture that others refer to as *life safety*. The biggest threat to life safety is not fires but car accidents, by a huge margin.

Since the vast majority of fire department emergencies involve car accidents, it is surprising that fire chiefs have not begun to reconsider response time. If they did, narrow streets would logically become the norm in residential areas.

In the meantime, the wider streets that fire departments require are indeed quite effective at providing them with quick access to the accidents they help cause.

The second mistake fire departments make is purchasing oversized trucks, vehicles that have trouble maneuvering through anything but the widest of streets. Sometimes these trucks are required by outdated union regulations, but more often they are simply the result of a town's desire to have the most effective machinery it can afford.

The purchase of bigger trucks may also be the result of what the fire marshals do when they go to their fire marshal conventions. They compare the size of their trucks. Never mind that their entire jurisdiction consists of split-level ranches, these chiefs are not about to be outdone in the hook-and-ladder department.

One can only hope that the advent of a woman-led fire department will eventually bring this tendency in check.

The symptoms of failure are not only wide spread across Michigan, but nation wide. Because of these failures, people are exercising less. These hostile environments are not the only reason why people engage in less exercise, but the way many communities are built *does not* make it easy for people to walk out the door and explore their neighborhoods and shopping areas to see what they have to offer.

The next chapter discusses some of the risks to health because of the way our communities have been built over time.

Chapter 5

Health Benefits

People Are Walking Less

PEOPLE are walking less these days. You read about this situation in the newspaper, hear about it on the radio, or see it on the evening news—but common sense also tells you the same thing.

How often do your kids play outside on beautiful, warm sunshiny days? How often do they go for a bike ride? How often do you see a senior citizen taking a walk? How often do you see a parent pushing a baby carriage down the street? How often do you see families walking or biking together, enjoying nature and getting exercise?

Those people who think that surfing the Web is an effective replacement for taking a walk greatly underestimate the difference between a computer and the human body!

Photo by Leslie Kettren

Photo 78.

Today's children watch more TV than their parents. Modern technology sometimes provides a disincentive to exercise, however people must set aside part of each day to exercise in order to stay healthy. Lack of exercise is making the people of our nation fat.

Diagram 2.
People Are Walking Less

1995 U.S. Department of Transportation
Nationwide Personal Transportation Survey

1975-1995
Walking Trips

Adults	**42% less**
Children	**37% less**

In 1995, the U.S. Department of Transportation conducted a nationwide personal transportation survey on the number of walking trips people make. The results showed that 42% of adults and 37% of children walked less than they did in 1975.

Increased walking and bicycling can improve health through aerobic exercise. When communities are walkable, we all benefit. The feelings of isolation and of sitting alone at home or in a car on a congested highway—diminishes. The ability to exercise benefits the physical and mental health of our children. A walkable community benefits parents because they can reduce the number of times they have to haul their kids around to various activities.

According to the National Center for Bicycling and Walking [1], physical inactivity is a major cause of sickness and disease. Inactivity—and its close companion obesity—are responsible for as many as 23 percent of all premature deaths from the major chronic diseases. You've read it before in this book but it bears repeating—one of the major causes is urban sprawl and a road system that is built for cars, rather than for people. The drop in physical activity—and the related surge in obesity—parallels the lack of opportunities we have to bicycle and walk *in* and *beyond* our communities.

Walking and bicycling aren't just about enjoying the outdoors—they are key components to practicing preventative medicine. Back in 1918, the U.S. Children's Bureau wrote that the health of the child is the power of the nation. That's

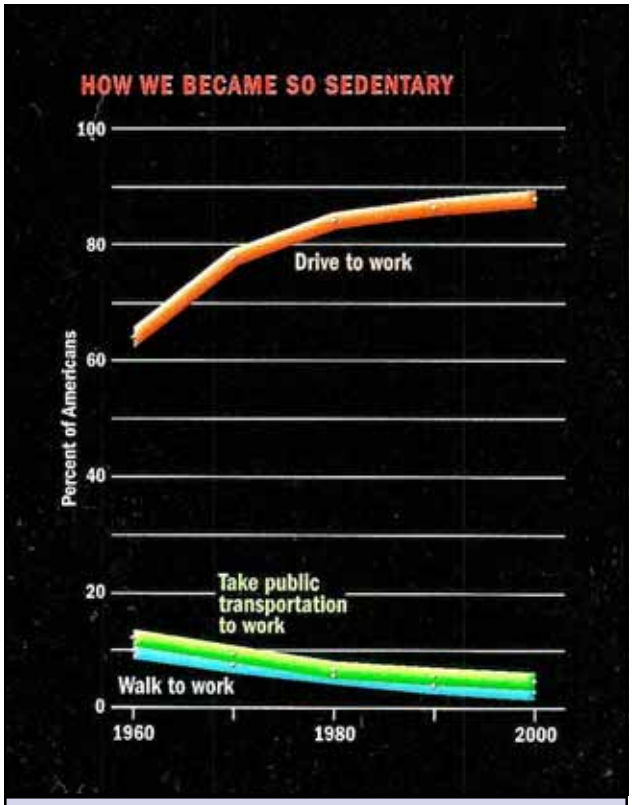
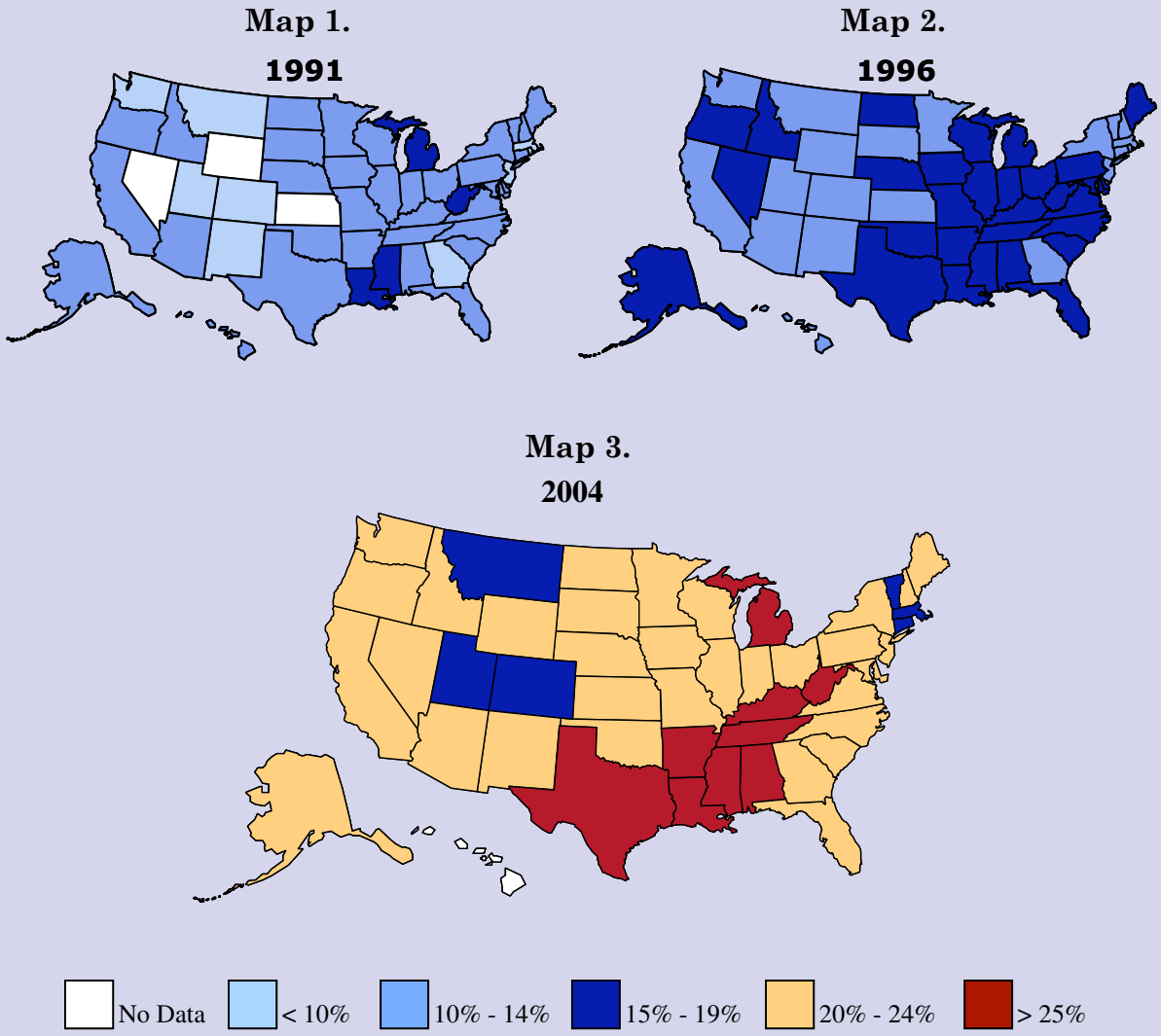


Diagram 3.
How We Became So Sedentary

National Geographic Magazine
August 2004, pages 56-57.

It's not all about food. We are gaining weight because we are exercising less. Obesity has reached red alert levels among children and adolescents, almost tripling since 1980—and small wonder. Suburban sprawl and lack of pedestrian-friendly streets have kids being driven instead of walking to school.



Obesity Trends* Among U.S. Adults
BRFSS, 1991-2004 [2]
**BMI >30, or ~ 30 lbs overweight for 5'4" woman*

During the past 20 years there has been a dramatic increase in obesity in the United States. In 1985 only a few states were participating in the Center for Disease Control's obesity data. In 1991, four states had obesity prevalence rates of 15-19 percent and no states had rates at or above 20 percent. In 2004, 7 states had obesity prevalence rates of 15–19 percent; 33 states had rates of 20–24 percent; and 9 states had rates more than 25 percent (no data for one state).

Source: Center for Disease Control, www.cdc.gov

why people in public health today are so alarmed about the percentage of overweight young people. And we all know that as we get older, we tend to exercise less and less.

Why are people walking less? Here is what Bill Wilkinson, executive director of the National Center for Bicycling and Walking says is the reason:

> *"It's more hostile out there: The traffic is faster, the roads are wider, the enforcement is down, and the courts are a joke. The majority of motor vehicle operators who hit and kill pedestrians are never cited for anything more than a misdemeanor at the most."*

It All Comes Down To This

In the first few chapters, I explained what makes a community walkable. This chapter 1s about health risks. Simply put, community leaders and road designers have a responsibility to see that our streets are designed and built for walking and bicycling. And, the public has a responsibility to elect leaders that understand the importance of a walkable community. Wouldn't that be nice?

Photo by Dan Burden

Photo 79. Marquette

The community leaders in this photo are committed to making their town more walkable by participating in a walking audit (see sidebar on page 7).

2003 Survey – U.S. Kids Less Active

Michael O'Shea, Ph.D., fellow of the American College of Sports Medicine, Parades Guide to Better Fitness, May 9, 2004

"Don't just tell your children to be more active—do it with them," advises Dr. Susan Vincent of Brigham Young University. "Swim, bike, hike, roller blade or play ball with your kids. Let them see you being active and eating better."

In 2003, Dr. Vincent released the results of a study in which she compared the number of steps taken daily by Americans aged 6—12 and kids of the same age in Australia and Sweden. From the start of the school day until bedtime, 1954 kids wore sealed pedometers that measured their total steps for four consecutive days. On average, kids in the U.S. took 2000 fewer steps daily than the Swedish children, who were the most active.

You also might want to consider parking the car in the garage more often. The study stressed the value of creating an environment conducive to activity. For example, the Swedish children lived in communities that were designed to encourage walking and biking.

City Girl's Loneliness in Her Suburban Switch is Normal

Dr. Joyce Brothers column, July 19, 2004, Oakland Press

Dear Dr. Brothers,

I am a city girl who is stuck in the suburbs. It seemed like a good idea a year ago, when my husband and I finally saved enough money to buy a nice home outside the city, and we are planning to have children here. I thought I would enjoy being in a less-crowded, less-noisy and less-dirty atmosphere, and I do enjoy that aspect of things. But I am not used to being in a car all the time; we didn't even have a car in the city. And while I have met a few neighbors, I feel lonely much of the time—I miss my friends and the fast pace of the city. I am sort of sad. Am I just spoiled, or will I get used to this? -T.W.

Dear T.W.,

Of course you are not spoiled. It is a whole new way of life for you to live in the suburbs, and change is difficult and even scary for many of us. You are the proverbial fish out of water. And if it makes you feel any better to know that you are not alone, you represent a type of suburban dweller who is inspiring town planners to make future suburbs more like old-fashioned towns, with homes close together and lots of places people can walk to—shops, restaurants and parks in which they can gather during the day.

A survey taken recently by a transportation group in Washington, D.C., revealed that whereas 71 percent of people walked to school as a child, only 18 percent of their children walk to school now. When you have a child, perhaps you will try to find one of these old-fashioned communities—or a newly designed one—with sidewalks and real neighborhoods, where the kids play in back yards, or on their cul-de-sacs instead of being driven across town to "play dates" by isolated parents.

But in the real world we know that is not always the case. Today unfortunately, all communities and neighborhoods are *not* walkable. If we as a nation are to encourage people to exercise more often, we all need to work together to reach those goals.

Have you ever heard someone say that they can't walk to the store or to the library, or to the post office, or to the park, and so on—because it is too far, and besides there is no sidewalk, and they don't want to walk on the street, and blah, blah, blah? People already have enough reasons and excuses not to exercise. Don't let the way your community is designed be one of them.

The next chapter gives you strategies for *how* to build healthy, walkable communities.

Chapter 5 Endnotes

[1] The next couple of paragraphs were taken from the website of the National Center for Bicycling and Walking at www.bikewalk.org. This website is packed with great information and I highly recommend that you take some time to download the free booklets and other materials. I also encourage you to investigate the many other websites that are linked.

[2] Definitions:

- Obesity: having a very high amount of body fat in relation to lean body mass, or Body Mass Index (BMI) of 30 or higher.
- Body Mass Index (BMI): a measure of an adult's weight in relation to his or her height, specifically the adult's weight in kilograms divided by the square of his or her height in meters.

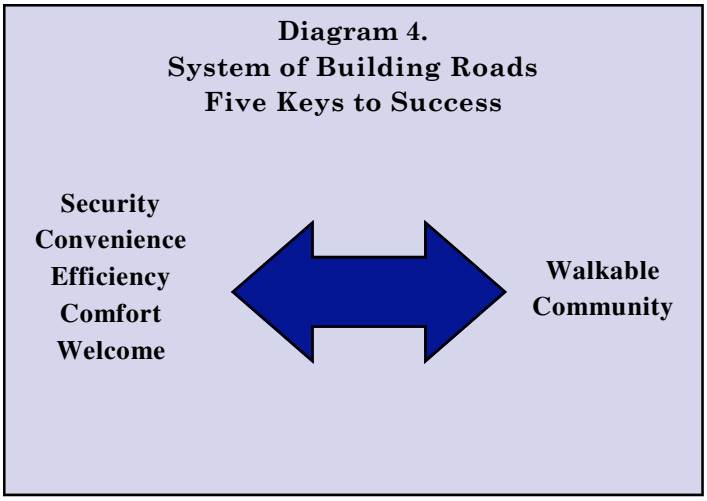
The information shown in these maps was collected through the Center for Disease Control's Behavioral Risk Factor Surveillance System (BRFSS). Each year, state health departments use standard procedures to collect data through a series of monthly telephone interviews with U.S. adults. For more information, visit the website at www.cdc.gov.

Chapter 6

Strategies for Success

Building a Road System

WHEN building a road system, there are five major keys that make a community an enjoyable place to live (see diagram below). People seek these things when they are traveling. The omission of any one of them can lead people to go elsewhere. If you want to keep your community as a well-liked and popular place for people to live, it is important to include these five essential ingredients to be a successful walkable community.



The five keys to successfully build a road system are security, convenience, efficiency, comfort and welcome. These in combination make a community walkable.

Politics

Often politics get in the way of level headed thinking! If politicians could only envision the long term effects on land use when they make budgetary decisions regarding road improvements—the world would be a better place. If the budget process for transportation improvements included designs for slower car speeds, reasonable street widths, connections to nearby streets, and access by not only cars but bicycles and walkers, we would find ourselves with practical public transit, bicycling, walking, and local shops

in our neighborhoods. High-speed roads that provide for huge numbers of cars only give us the reverse—and it doesn't matter what our community maps show. These decisions reduce our community's "*sense of place*" and encourage the building of Anywhere, USA.

Engineering decisions to design our roads wider and faster are political decisions. For example, decision-makers may claim that widening a road in your community will protect public safety, health and welfare, provide more jobs, or help the economy. In fact, this is often not the case. Simplistic decisions such as this made by uninformed politicians are one of the biggest reasons why we have sprawl, destruction of the environment and loss of property values. Although the values have steadily gone up in suburbs and in sprawling communities, it has not been enough to increase the livability factor in most communities.

Community Comprehensive Plans (Master Plans) should start off with an objective that states—roads shall not be widened just to accommodate more traffic. Adding more travel lanes so that more cars can use the road is a temporary fix to reduce congestion. Over time this only creates more traffic which creates more congestion which we all know is not a good thing.

If a community is growing, the roads may need to be widened to increase street capacity, but it can be done more sensitively by providing a network of small, narrow roads that are well connected. Two narrow roads that parallel each other is a better alternative to building one wide road. Wide roads are difficult to cross when walking or bicycling. They are more difficult when making left turns. And, they are more difficult to avoid when the street is closed for repairs or because of a crash.

The widening of our roads is not only expensive, but is ineffective over the long haul. If you don't believe me, then read some of the references listed in the back of this book that report on studies around the nation. These references back-up this finding. Whenever politicians decide to spend our tax dollars on widening roads—we loose as a society. So, the next time you hear that these decisions are not political, you can say "Hogwash!".

Shopping Along Rochester Road

The photo below is of Downtown Rochester—on Rochester Road. Shopping in the downtown is a pleasure. The area is safe and has convenient parking. The historic buildings are interesting and the wide sidewalk is easily walkable with shade trees and benches to make the atmosphere extremely welcoming.

Photo by Leslie Kettren

Photo 80. Downtown Rochester

Just about 3/4 mile to the south, on the same road, is Rochester Hills. Shopping along this stretch of Rochester Road can be stressful. The widths of the lanes are wide and the street is very busy with bustling traffic. The beautiful buildings are too far apart to shop conveniently—shoppers must get in and out of their cars and drive from parking lot to parking lot. While the streets in front of the predominantly big box stores are landscaped, there are few shade trees to walk under on a hot sunny day or to break the wind on a wintry, cold day. All in all, this is not a pleasant walking environment.

Which section of Rochester Road do you think generates the highest level of security, convenience, efficiency, comfort and welcome?

14 Key Strategies for Walkability

Great towns, villages and cities are based on simple, easily understood walkable strategies or principles. When reading this chapter, you will want to try to identify, by your own observations, if any of the following strategies can be found in your community. They can be easily built, some with a little more expertise than others.

If you notice that these walkable strategies are commonplace in your community, then by all means continue to use your municipal engineers because they are at least open to new ideas. If you have judged your engineer to be flexible, then thank your lucky stars because that is the first hurdle.

However if you don't see sidewalks, well marked crosswalks and bike lanes in your community, then it is time to hire new experts. If your engineer or decision-makers are unsure of how to build a walkable community, it is only for two reasons. The first reason is because they are "stuck-in-the-mud" types who are not flexible in their thinking. The second, which is probably more the case, is that they are unsure of how to proceed.

From my experience, I sense that many civil engineers and decision-makers have never given much thought about the needs of walkers or bicyclists, or that almost 1/3 of the population does not drive. When talking about a road construction project, they are focused on the 69% that do drive. That's where you come in. As a leader who can bring about change, get those decision-makers and that engineer to hire an expert who *does* know how to proceed!

By the way, the number one complaint that I hear about is the cost of maintenance. Some types of street improvements do increase maintenance costs—ever so slightly. My response, a real "plum", is tell people *you get what you pay for*.

The question for me has always been, do you improve the livability of your community, or do you let the person who plows snow make that decision. I have found that once a community actually gets into discussing the value of these walkable strategies, the questions of maintenance go away. Besides, if you hire the right experts to implement these strategies, then cost never does become an issue because all you see are benefits.

Street Widths

Streets and the Shaping of Towns and Cities, Michael Southworth and Eran Ben-Joseph, pages 3 and 4

A modest change in pavement width can have large consequences for energy consumption, comfort and convenience, sociability, the time and effort we must spend in local trips, as well as the costs of construction and maintenance. Land devoted to the street right-of-way takes away from the area devoted to residential units, thus reducing the size of lots.

An increase in street width also increases construction and maintenance costs proportionately, lowers densities (assuming the same lot size and housing type), and increases travel times between points…

As car ownership and mobility have grown, engineers have assumed that streets must be enlarged [widened] accordingly. The result has been regulations and standards that are often in excess of actual traffic requirements…

Local agencies have been required to adhere to minimum geometrical design criteria in order to be eligible for monetary assistance…Lenders in turn have been hesitant to support a development outside the mainstream, particularly when it did not conform to established standards and regulations… As a result they required standards specifying wide streets, ample parking, and ease of movement in return for taking on [funding] a project.

Walkable strategies are based on common sense—but you be the judge. Once you begin to understand them, you will know what kinds of streets that communities should be building. There are fourteen key strategies that guarantee a more walkable and healthy community—so get excited, take notes, but most of all, learn…

Strategy 1. Build for Everyone

In the "olden" days, before cars were built, most people walked to shopping areas, to work, to school, and to church (the rest used horses or carriages). In fact, all towns that were built before the invention of the automobile were designed for walkers. What has happened to common sense over the last 100 years?

Story of Mode Hopping

Transportation choices can be rich and varied. They might include starting an overnight trip by getting off a train, then walking to a transit stop, hopping on a bus, then walking to the final destination. If this journey is to work then each mode needs to be seamless. That is, you should be able to switch back and forth from one type of transportation to another almost on a whim.

Dan Burden told me that he once took a day's journey just this way, starting with a walk from an overnight train with his then 16-year-old daughter Jodi, in Stockholm, Sweden. In just one day, they switched modes 42 times, never once using a car.

After their bus ride they went from foot to subway to foot to another bus, to foot, to tram, to foot, to ferry, then to foot, then to a bicycle … on and on. This spontaneous switching of modes was handled on one all-day pass, from 8:00 am to 10:00 pm, where they then boarded another train to yet another city using an overnight sleeping car.

In another 30-day trip walking across Europe, they never broke this record of 42 switches between modes, but did effortlessly switch from mode to mode 20 to 30 times most days.

I was amazed at that story. The way America is built, that kind of trip could never be accomplished here except possibly in New York City or Boston. We like our automobiles too much. Most Americans would rather put tax dollars toward building wider and faster roads, than to building the types of transportation modes that Dan and Jodi experienced in Europe. What a shame!

Road Designers Forgot About People

As the car became the more dominant means of transportation—much more popular than the horse and buggy—road engineers, architects and other designers began building roads, buildings and parking spaces to make it easier for the automobile to be driven and stored everywhere, all the time. Over the years, road designers seemed to forget that walkers and bicyclists still needed (and wanted) to use the roadway too.

In the Good Old Days

In the early 1900s, when the car was in its infancy, our cities and towns were packed with people, horses, bicyclists, trolleys, trucks and autos—all *shared* the road.

The role of transport, then as it is today, was to maximize the exchange of goods and services. Back then, Michigan had many transportation choices. The past 80 years have seen these modes dwindle, leading to dependency on the automobile—resulting in congestion.

The high use of cars, limited travel choices for those who don't drive, and development or other uses of land that caters to automobiles—is the norm today. It's enough to make you think about going back to the good old days!

Today, few people can be found on streets in the suburbs. The number of walkers and bicyclists are indeed few in numbers. I seldom see people with disabilities or parents pushing baby carriages in neighborhoods or commercial areas. In most cases, buses and other forms of public transit don't exist. It is possible in many suburbs to take a walk for periods of an hour or longer and never once see a person outside of a car. How sad is that?

The health of a place is determined both by the number of walkers, and by the diversity of people coming and going, lingering and exchanging. Our urban centers should have many young children and teenagers present. There should also be many older adults and people with disabilities. People should be out in public spaces, using public streets most hours of the day. This should be common—but it's not!

Photo by Russ Saying

Photo 82. Traverse City

A mother and her two children enjoy the out-of-doors while two friends take a walk through the park. Walkability is dependent on paths that are well maintained and that take you somewhere interesting.

Photo by Dan Burden

Photo 81. Okemos

A bicycling family has ridden from their home, through a roundabout (see page 89) and is on their way to a nearby shopping mall. The sidewalk is wide and in good repair for an easy, safe and enjoyable ride.

Photo by Dan Burden

Photo 83.

Build for everyone. Teenagers like to hang out and socialize when the setting is safe and they don't get harassed. The sidewalk is very wide here to accommodate crowds of people from many walks of life.

Photo by Dan Burden

Photo 84. Ferndale

(right) After walking to the Downtown, it's nice to stop at the local coffee shop to rest and talk about the Woodward Dream Cruise. When building for everyone, walks such as described here can be interesting when the setting is pleasant. Perhaps these folks also wanted to jump on the internet to check their email messages!

Photo by Bekki Wasmuth

Photo 85. Midland

This couple is taking a rest in the park near the Pere-Marquette Trail that runs through Midland. Here, walkers can eat a picnic lunch, walk across the Tridge, visit the farmer's market, or shop in the downtown. This part of the community is built for everyone.

Photo by Bekki Wasmuth

Photo 86. Midland

Kids fish near the Tridge where the Chippewa and Tittabawassee Rivers meet. Building for everyone makes a community walkable.

Photo by Bekki Wasmuth

Photo 87. Milford

Teenagers like to ride their bikes to the Center Street Park, a small pocket park in the downtown, and skateboard. Build for everyone.

Photo by Russ Soyring

Photo 88. Traverse City

Shopping with the dog while pushing a baby carriage can be enjoyable when the sidewalk and setting is pleasant.

Photo by Russ Soyring

Photo 89. Traverse City

In a walkable community, winter outings are made safe and enjoyable when sidewalks are kept clear of ice and snow.

Photo by Scott Wasmuth

Photo 90. Milford

Main Street USA is essential. What would America do without them? For example, where do people hold a parade in the suburbs—a mall parking lot?

Strategy 2. Build with Proper Size and Scale

How big a community's features are—its buildings, blocks, signs, parking lots, and so on—indicates whether it is built mainly for people or mainly for cars. In order for towns and neighborhoods to remain healthy, they must be planned and built to walking scale [1].

People-scaled design includes buildings on smaller lots; mixing different types of housing with parks and businesses; keeping streets narrow, parking lots small, and light poles short; putting buildings close to the street, the sidewalk, and other buildings; having street side entrances; and creating short street blocks and connected street networks. Such a design adds interest and character to a city's streets and keeps it from deteriorating into Anywhere, USA [2].

Before cars became so popular, early neighborhoods in larger cities were often linked along a continuous line, with trolleys. A new neighborhood center appeared each half-mile, exactly the right distance for one neighborhood to touch the next, by foot.

Photo by Bekki Wasmuth

Photo 91. Midland

Stores like the one in this photo are not as common as they once were. It is located near homes and can be easily reached by walking. Neighborhood stores provide convenient shopping for items such as shampoo, postage stamps, or a bottle of pop—without starting the engine of your car. It is also a neighborhood-gathering place to meet friends.

Historically, towns were built of many different neighborhoods. As the number of neighborhoods grew, so too did the city. These neighborhoods were intact, meaning that they usually included a school, church, a neighborhood park and a local store where you could buy a loaf of bread, a carton of milk or a quick aspirin.

Today's decision-makers need courage and strong political leadership to combat outside influences that want to change that walkable development pattern. Case in point—the influx of huge national chain stores. Decision-makers need courage to protect the proper size and scale of their community. When these national chains start waving around large property tax revenue or the prospect of new jobs, many leaders don't have the strength to stay the course. In fact, many of our decision makers back down when confronted with these situations. This is where courageous political leadership is crucial.

Front Porches and Entrances

These were considered neighborhood places where people could gather and talk over such issues as family, the new neighbor who moved in down the street, school activities, or about the barbecue or potluck that all the neighbors are attending next weekend. These were places where neighbors shared conversation with neighbors—in a welcoming atmosphere.

In addition, homes== used to be built facing the street. Porches were on the front of homes where people would sit and greet neighbors as they walked by. In most new subdivisions today, homes are built to face

Eyes on the Street

A neighbor watching over another neighbor's home and yard is often referred to as having "eyes on the street". Many homeowner "eyes on the street" make neighborhoods safer because everyone looks out for one another. It is difficult to accomplish this when homes in a subdivision face the backyard.

Photo 92. Marquette

In most subdivisions today, many homes are built to face the backyard. These homes are dull and uninviting from the street view—and not a very interesting place to walk! The ability to watch over your neighbor's property has become a thing of the past.

Photo 93. Monroe

Before 1950, most homes were built facing the street with porches on the front where people could sit and greet their neighbors as they walked by. Here we see a new subdivision built like those of the past. What a wonderful neighborhood for parents to keep their "eyes on the street" for any mischief.

the backyard. The ability to watch over your neighbor's property—and they to watch over yours—has become a rarity and a thing of the past.

Local vs. Regional

In suburban and urban neighborhoods, it is a challenge to build and maintain small parks. It is always easier to provide one (or a few) 15 to 30 acre regional parks, than to build 60 small one-half to 3-acre neighborhood parks.

Today churches, many businesses and even schools are designed and built huge for regional purposes, rather than for local reasons. Many people argue that this is because it costs less. But it seems that in our attempts to spend less—we are loosing our small friendly neighborhoods where services used to be local.

Developers tell us that big box retail stores of 40,000 to 120,000 square feet are more profitable than small-scale operations. Have you noticed that most post offices are no longer located in towns, but are built on the outskirts where you must drive your car to reach it? The government has determined that postal services be removed from downtown settings to make way for larger buildings, greater efficiency and added parking. Is bigger always better?

Photo 94. Grand Rapids

Pocket parks (also called neighborhood parks) such as this one are usually not included in new subdivisions because of the extra cost. Does it cost more or less when it comes to livability?

Unfortunately these trends of separating uses and spreading development all over the place, destroy the ability of most people to walk or bike to conveniently reach these services. Where it was once possible for a family to make as few as 2 to 4 trips in a car daily, the number has now climbed to 10 to 12 trips [3].

Photo by Leslie Kettren

Photo 95. Hartland

Today most schools are isolated buildings designed and built large and regional. This large parking lot at Hartland High School is revealing—this is a school where no one will ever walk. This school was designed with the assumption that teachers and students must drive or ride a bus to school—thus adding more traffic to our already congested roadways. Is bigger better? For whom?

Photo by Bekki Wasmuth

Photo 96. Commerce Township

Big box retail stores are more profitable than small-scale operations. In the entrepreneurial game of making bigger profits, however, we are losing our small friendly neighborhood stores where services used to be local. Is bigger always better?

Space Needed for Cars

Every time a car is driven somewhere, the car needs a space to park. In our modern communities, each new car needs 12 to 13 parking spaces. Land is consumed very quickly with vast parking areas that must be built to accommodate these trips. Most of these parking spaces are built in parking lots, off of the street.

When parking spaces are built off of the street, a single car uses nearly 600 square feet. This includes the area to enter the parking lot, area to turn the corners, area needed for moving in and out of a parking space, plus the actual storage area (space for parked car).

What does all this mean? Well, the average car takes up 6,000 feet of space just for the times it is being stored away from its home base.

In contrast, the average office space for a worker is less than 120 square feet, and a good-sized suburban house may consume 3,000 feet of land. Not only is there no way for road systems to handle these parking demands, its not compatible with the concept of neighborhoods, village style living and compact, energy efficient communities. In short, this parking dilemma is not sustainable (see sidebar below).

People Will Walk One-Quarter-Mile Radius

History has proven that a distance of a quarter-mile radius forms the near perfect

Sustainable Communities

A Planners Dictionary, American Planning Association Planning Advisory Service Report, April 2004, page 403

A sustainable community uses natural resources in a way that does not jeopardize the ability of future generations to live and prosper. Sustainable is the finite capacity of any place to support human activities, given a set of impacts that those activities have on a place. Once capacity is reached, the impacts of additional growth or activities harm the integrity of the place and impair its ability to function as intended.

Use of Space

The following photos were taken in the Netherlands. They make specific points about the amount of space needed by vehicles vs. other modes of transportation. Photos provided by Dan Burden.

Photo 97.

This photo shows the street vacant with no vehicles. It is demonstrating how much space there is when people walk.

Photo 98.

Now we see the same space with 24 people seated in the street. They are demonstrating how much space they would take up if they were riding a bus.

Photo 99.

Again we see the same street with the same number of people spaced out as if they were in a car as the only passenger.

Photo 100.

Now we see the same street with 24 vehicles. The amount of space needed for a car is dramatic when compared to the photos above.

place for people to interact. No other scale works as well. This scale allows people to reach most primary destinations in five minutes.

A five minute walk (one-quarter mile) is as easy as a trip by car. A 10-minute walk (one-half mile) is easily achieved and is a good basis for planning a compact neighborhood or village. A 20-minute walk (one mile) is a reasonable distance to walk for exercise when the area is pleasant [4].

A five-minute walk will take you further on a grid pattern with good sidewalks than on a cul-de-sac pattern with difficult street crossings. Thus, street layout has a major affect on how far people can walk in 5 minutes, and on how many homes (and people) will fit within a neighborhood.

Effects of Auto-Dependency

All of this increase on auto-dependency is taking time away from our family, from volunteerism, and from time to take a healthy walk. So, not only does dependency on the automobile keep us in the car much longer than in the past (when only 2 to 4 trips were taken daily), it means that for each 10 minutes added weekly to our driving, we volunteer our services 10% less. Less free time also means we are less likely to take a walk—even though we need it for our mental, social and physical health.

As you can see, dependency on the auto affects us in many ways—in ways that each of us must personally define for ourselves.

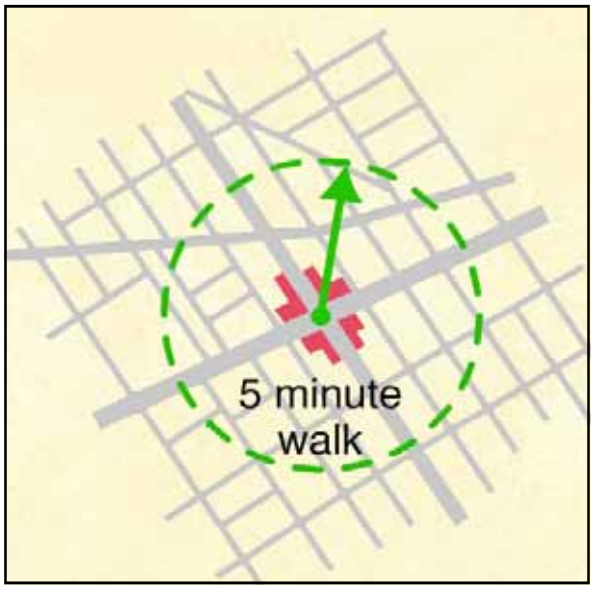


Photo 101. Neighborhood Grid Pattern

Photo 102. Neighborhood Cul-de-sac Pattern

5-Minute Walk From Center
10-Minute Walk Across Neighborhood

New Urbanism: An Introduction,
Congress for the New Urbanism, 2002 slide presentation, www.cnu.org

The optimal size of a neighborhood is a quarter-mile from center to edge. It is possible to get completely across an entire neighborhood in 10 minutes. You can walk farther and with less difficulty when the street pattern is on a grid.
*For most people, a quarter mile is a **five-minute walk.** For a neighborhood to feel walkable, many daily needs should be supplied within this five-minute walk. That includes not only homes, but stores, workplaces, schools, houses of worship, and recreational areas.*
Presentation production and design by Urban Advantage

Take a few minutes to think about the place that you call home. Think about the street where you live. Think about your neighborhood, the schools, the parks, the restaurants and the shops you visit. Is bigger better? Does it cost less or more when it comes to livability?

Strategy 3. Create Linkages

I don't like to walk in places that make me feel uncomfortable or on edge, as I am sure you would agree. I don't believe that anyone enjoys walking on the side of a busy street with a lot of cars whizzing by—because the street has no sidewalk! And, walking in places where I am the only walker makes me feel ill at ease. These are not safe or comfortable situations. So, I have three rules of thumb when I want to go somewhere and don't want to drive.

First, the street needs to have a sidewalk and be linked to other sidewalks. To combat the dependency on cars, we ought to be building bicycle and walking paths that connect schools, shopping areas, parks and neighborhoods—including connectors at the ends of cul-de-sac streets. If there is no sidewalk, then the street needs to be built so that people will drive slowly so I can walk on the street if need be. In other words, I want convenience when I leave the house for a walk.

Second, I like to walk where there are lots of other people because I like to be where other people congregate. It is more interesting and I also feel safer. In Milford where I live, I like to walk to interesting places. Places like downtown where I can stroll past the shops and peek through the windows. Places like the farmer's market on Thursday's or the library that is near the park. Or, places like the bridge over the Huron River where I can watch people fish. Linking these areas makes for an enjoyable, safe and interesting walk.

Third, when I'm out walking or bicycling, I like that I have different routes to choose from and different settings to see as I travel from place to place. It's great to be able to see and experience as many new things on the 10th, 80th or 200th walk as I did on the very first walk.

Variety is the spice of life. Sometimes I change my route because there are times when the sun angle or wind direction makes a different route more comfortable. The only way to experience such variety is if the many different routes are linked to each other.

Photo by Dan Burden

Photo 103. Birmingham

Window shopping with many people in close proximity makes walking interesting and gives you a sense of being safe.

Photo by Leslie Kettren

Photo 104. Milford

Strolling down to the Huron River to watch people fish is a common occurrence for people in Milford.

Photo by Russ Soyring

Photo 105. Traverse City

Walking should always be in a safe environment, on a sidewalk and away from traffic. In this downtown setting, the cars are moving slowly enough that these walkers do not feel intimidated.

Photo by Leslie Kettren

Photo 106. Milford

This sidewalk ends not once—but twice! Communities must find the resources to fill in these gaps when they occur. Conducting a sidewalk audit and mapping the results is a good way to prioritize sidewalk projects.

Photo by Dan Burden

Photo 107. Marquette

No sidewalk. Do you think these people feel safe walking along this street with cars whizzing by?

No Sidewalks is a Problem

The lack of sidewalks is a real problem in most communities. Many housing developments built during the last 30 years were put in without sidewalks. It used to be that people equated sidewalks to the city—something that they were fleeing. I hear people say that if a subdivision has sidewalks, it looks like the city, but if a subdivision has no sidewalks, it looks like the country. My response to them is this—if a subdivision is built with no sidewalks, it may not look like the city—but it certainly doesn't look like the country either!

Isn't it time to reconsider that old fashioned kind of thinking? The fact is, today many of those neighborhood streets aren't safe places to walk or bicycle because people—parents, kids, and grandparents—have to walk or bike in the street and compete for space with fast moving cars. In today's world, there is just too much traffic everywhere to continue thinking that we live on a quiet country lane. Sidewalks are a necessity for just plain safety reasons!

Connect Neighborhoods

What is most troubling to me is that some neighborhoods are like little islands (see photo 107 on page 62). You can't easily and safely walk or bike within them—and they aren't linked to other neighborhoods or commercial centers. For example, to visit the library you're likely to have to drive the car—because there is no pathway or it's too far away.

And guess what? Always driving everywhere makes other people feel the necessity to drive too. It's like a snowball effect—someone does something and others feel the need to do it too. This type of thinking does not encourage connecting neighborhoods with other neighborhoods or with shopping areas—and definitely does not help to keep your waistline trim and fit because it's difficult to walk anywhere!

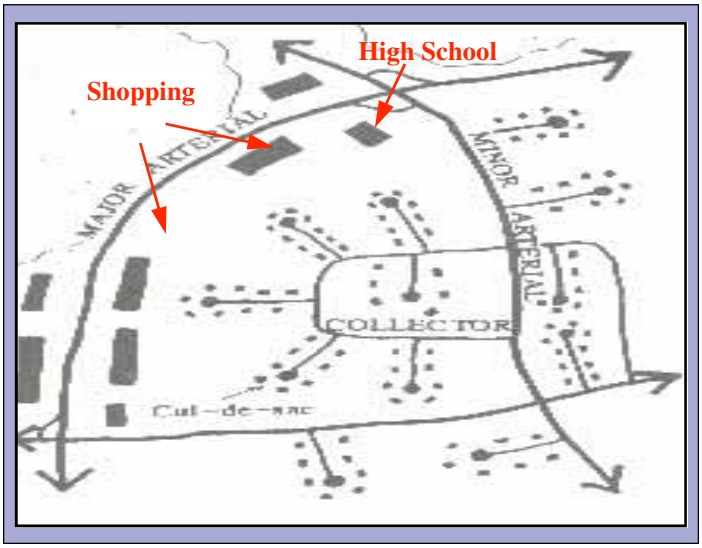


Photo 108. Lack of Linkages and Connections

This sketch of a subdivision shows streets that do not link to other streets. People who live here are isolated. Even though there are nearby shopping areas and a school, they are actually more distant than it appears. Residents just fifty yards away from shops or school activities must still get into the car, drive half a mile to exit the subdivision, drive another half-mile on the main road, and then walk from the car to the building. What could have been a pleasant two-minute walk becomes instead an expedition requiring the use of gasoline, adds to congestion and uses space for parking. What kind of American Dream is that?

I would like to share something I read about in Dom Nozzi's book, *Road to Ruin*, which I think demonstrates my point very well [5].

> In the sidebar on page 63 called "Cul-de-sac Kids", we see three hypothetical students. Brian lives 150 feet as the crow flies from his friends Jamie and Jeff. He probably cannot walk directly to his friends because today he is likely to encounter "no trespassing" signs or even barbed wire or chain-link fences. In the likely event that his direct route is blocked, he must use the street.
>
> But by street, he needs to travel 3,400 feet (almost ¾ of a mile) to see Brian. And if Jeff wants to see Jamie, it's 8,400 feet by street (over 1½ miles). Jeff must either ride his bike on dangerous streets or ask his Mom for a ride. And it usually is Mom…

While we drive at higher average speeds in cul-de-sac neighborhoods, our average trip time is longer, as those mothers have probably figured out. Partly because cul-de-sacs often require traveling in the opposite direction of where we want to go, cul-de-sac street networks generate 50 percent more vehicle travel miles than would a network of connected streets.

For these reasons, I see a huge need to create many linkages or connections in our towns and neighborhoods. Sidewalks should be linked and connected throughout your community. For these linkages to happen, most new streets should be built in short sections, 300 to 600 feet long. In communities designed with short blocks, there might be 40 or 400 different ways to reach a single destination—and all within only a mile from your house.[0]

Think about it! When there are no connecting routes between neighborhoods, how many different routes and places are you able to walk safely? Once you have walked the same route several times, you probably become bored with the walk. It doesn't take long before the choice of wanting to take a healthy walk wanes to wanting to stay in the house and watch reality TV.

Short Blocks Best for Walking

300 to 600 feet is also the best length for a block because city planners and road designers have proven that this distance helps to keep the speed of cars in check and to distribute traffic over many different routes. Frequent blocks do more to keep the speed of cars slower than any modern traffic calming [6] device. Traffic calming is discussed in more depth starting on page 82.

Shorter blocks can create a stronger sense of place too. Also, it provides walkers shorter, more direct routes. Remember the ¼-mile rule, anything longer and we are tempted to grab the car keys. I recently visited Portland, Oregon where the city was laid out with 200-foot long blocks by early

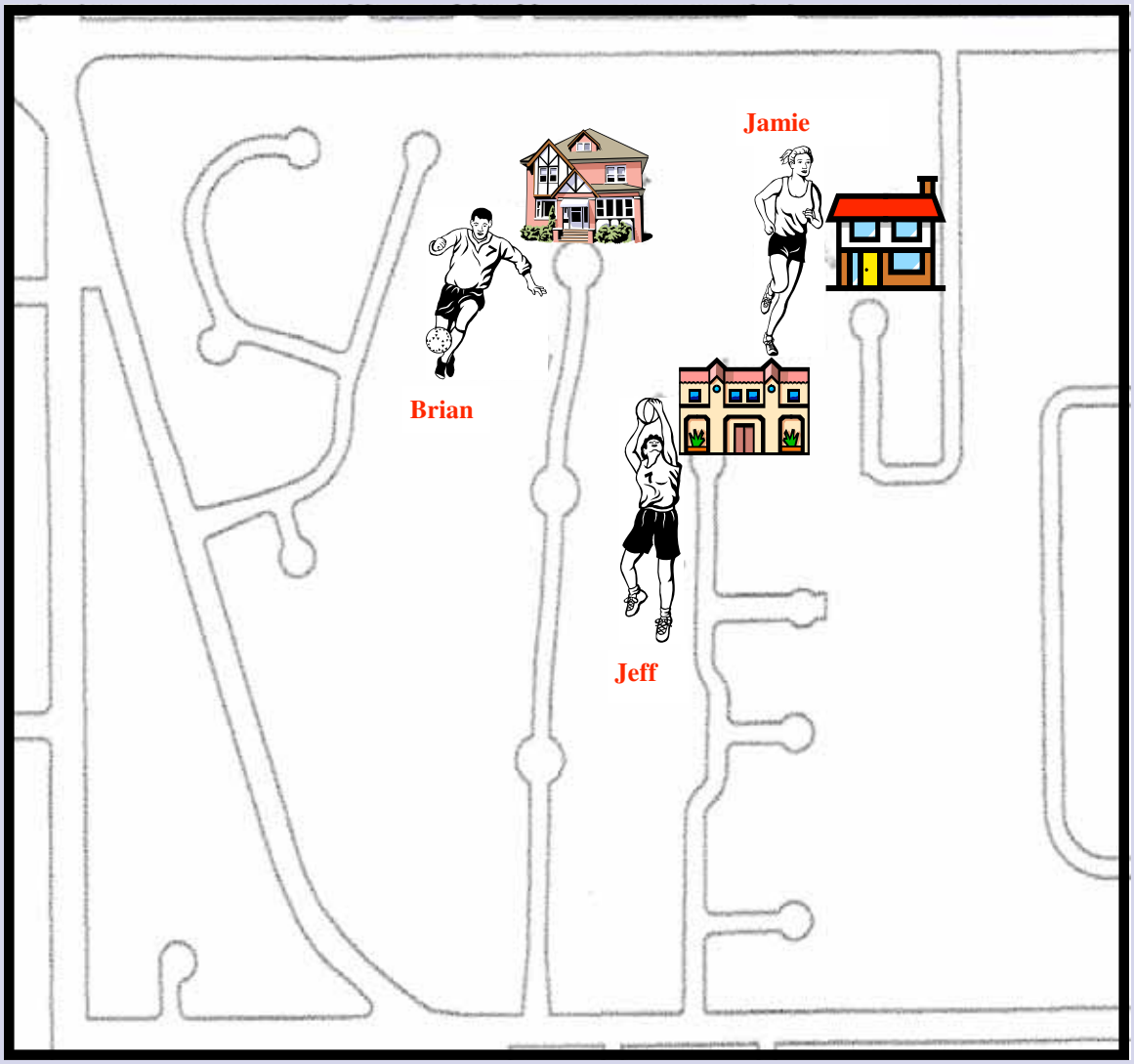
Diagram 5
Cul-de-sac Kids

Adapted from Dom Nozzi's book, "Road to Ruin", pages 31-34

There is only one way out of a cul-de-sac, and often only one way out of a cul-de-sac neighborhood—no change of scenery that alternate routes would offer, a monotony that deadens the life of many of our contemporary subdivisions.

More seriously, emergency vehicles have no choice of routes if they come up against slow or halted traffic or a fallen tree, a lack that can cost lives. This absence of trip choice also substantially increases the service cost for postal delivery, garbage collection and school buses, because such services are forced to backtrack over streets already covered…

The disconnected cul-de-sac neighborhood gets congested even with a tiny development density… There is also a fairness issue. Cul-de-sac residents increase the traffic in neighborhoods without cul-de-sacs, because living in a cul-de-sac requires us to get in our cars more often than on a bus, bikes or our feet. While cul-de-sacs remain insulated from traffic, we impose a disproportionately large number of car trips on other neighborhoods.



developers who wanted to cash in on the extra money they received from corner lots.

I'm not suggesting that communities should build 200-ft long blocks, but Portland is a good example of where walkers benefit from the strong level of connectivity that resulted from this short block pattern of development. Residents here drive a car 50 percent fewer miles and make 33 percent fewer car trips than those in the suburbs [7].

Variety in Look of Buildings

In order to have such diversity in town settings, buildings must have beautifully varied textures. There must be many windows, many building types, many landscaping treatments, many variations and many patterns along the street.

Photo by Dan Burden

Photo 109. Mason

The lengths of the blocks in this traditional neighborhood are 400 to 600 feet. The blocks are linked in such a way as to form a grid pattern. This is the best length and pattern to keep the pace of cars down to reasonable speeds.

Oregon Reduces Car Dependence

Road to Ruin, Dom Nozzi, pages 128-129

To reduce car dependence and encourage transit-oriented development, the state of Oregon in 1991 adopted the Oregon Transportation Planning Rule, which required cities to reduce vehicle miles traveled by 10 percent over the next 20 years and 20 percent within 30 years.

As a result, in that state, all land use design, densities, and design standards must be analyzed to determine if they support bicycling, walking, and transit. Codes had to be amended to allow higher residential density near transit lines and to new office and retail developments. Land zoned for neighborhood shopping must be easily accessible by foot or bike. New multi-family and commercial building entrances must be within 100 feet of a transit route.

As a result of negotiation, the rules have been softened a little to a more realistic level, yet the Oregon Transportation Planning Rule still retains the overall goal of reducing reliance on the automobile.

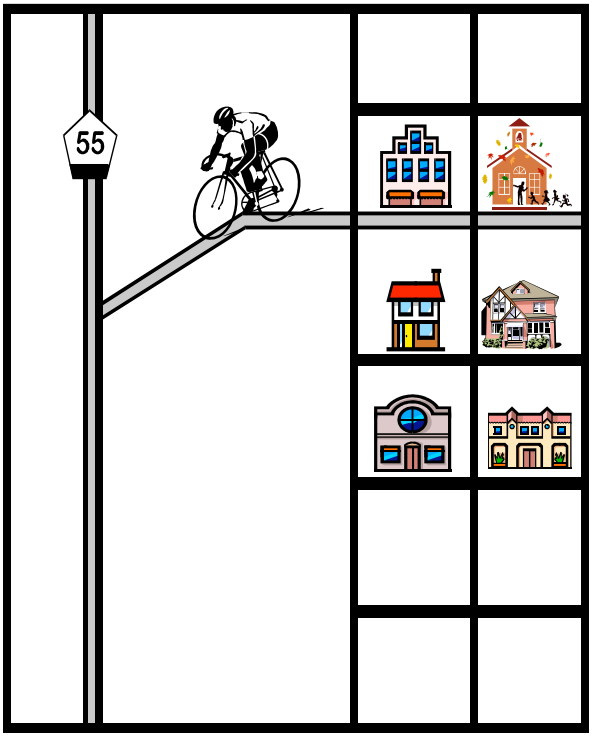


Diagram 6.
Traditional Grid Pattern

This diagram shows a neighborhood with blocks that are built in a grid pattern. The length of each block is 300-600 feet. This street design provides the most choices and shorter routes for people who want to go walking or bicycling from place to place.

New Linkages and Connections Can Be Created

Now, you may be thinking that you live in a neighborhood where there doesn't seem to be any room left to put in sidewalks. Well there are still other ways to make your neighborhood more walkable. New linkages can be created in places where streets are already built, and aren't well suited for walking or biking.

Although it is possible for road designers to rebuild streets in established neighborhoods, but due to costs, it rarely happens. It is often possible however, to make use of utility corridors, waterways and other open spaces to create walking and bicycling trails. These linkages make it possible and practical for people to safely walk or bicycle to parks, schools, libraries and shopping or office centers.

Davis, California, for example now installs trail connectors between houses, making it easier for people to reach parks, schools and public transit. In one case, the city bought a house, moved it to another location, and created an attractive pocket park connecting into an important transit stop.

Photo 110

Former train track corridors have been converted to biking and walking trails throughout Michigan. Not only do these trails connect with neighborhood areas, but they quite often link to shopping areas that provide restaurants, ice cream parlors or other small stores where people can get a meal and refreshments.

Strategy 4. Streets Have Multiple Uses

Streets perform many missions in addition to moving and parking vehicles. It may not always be obvious, but main streets and roads in our neighborhoods can also serve as "outdoor living rooms".

Photo by Dan Burden

Photo 111. Birmingham

Streets that are balanced and built well encourage proper behavior of drivers, and present a sense of pride and belonging to anyone associated with the street.

Photo by Dan Burden

Photo 112. Brighton

Streets are where we meet our friends and neighbors and just "hang".

Photo by Russ Soyring

Photo 113. Charlevoix

Streets teach young people life skills and how to interact with others. A young Mother keeps a close eye on her son as he rides his bike downtown.

Photo by Russ Soyring

Photo 116. Traverse City

Streets serve as a learning ground for young boys as they run an errand for their Mother. Even as they do their chores, they take advantage of the streets amenities to play along the way.

Photo by Dan Burden

Photo 114. Dimondale

Streets serve as outdoor living rooms. Here we see a Mother reading the morning newspaper while her son practices riding his bike.

Photo by Bekki Wasmuth

Photo 117. Royal Oak

Well designed streets provide safe and efficient movement of all vehicles, while also providing for sanitation, utilities and timely emergency response.

Photo by Dan Burden

Photo 115. Kalamazoo

Streets can serve as the neighborhood playground. This skate boarder zoomed quickly past before we could get a good photograph of him up close. He was too busy demonstrating his skills to bother with us!

Photo by Dan Burden

Photo 118. Birmingham

Quality design of streets helps determine property values. When streets are built for moving traffic and little else, they fail the greater needs of a community.

Charrette Workshop

Walkable Communities,
www.walkable.org

A charrette-style workshop is a visually engaging, interactive, and collaborative series of public workshops, focus groups, field condition inventories and design sessions. It offers opportunities for friendly, informal discourse and debate among community citizens, and the process achieves workable visions and solutions for specific neighborhoods or a whole community.

Town building charrettes require a minimum of 5 days. Preferably they include 7 days of work product development. Shorter length charrettes may be used for easily addressed issues.

A further intent of the charrette process is the development of a cadre of citizens and business leaders who learn ways of supporting long-term town building. A sense of ownership in neighborhood and town development evolves from most charrettes.

Charrettes can be used for anything from reaching consensus on long-term visions for town development, to finding workable agreements on single projects. Charrettes identify short-term and long-term problems and issues, which are important to residents and business leaders.

Charrettes also identify opportunities and needs. They turn town planning from a reactive to a pro-active process. Charrettes build both immediate and long-term solutions.

Participants usually require an immediate result. Short-term steps are outlined as part of the work product. Implementation strategies are also suggested. Policies and principles are established for future decision-making and town development.

For charrettes to be successful, everyone taking part must be active and listen to the concerns and issues of others. The community, as a whole, comes first. Project recommendations must be based on seeking outcomes that improve conditions for the greatest number of people and provide for the long-term health of the community. Short-term losses or inconveniences by individuals must be anticipated, if long-term growth and development is to occur.

Photo by Bekki Wasmuth

Photo 119. Clawson

People want the street in front of their homes to have low speeds, low noise, and low traffic volumes. Design should lead to meeting the most basic values people hold for their residential streets and communities.

Photo by Bekki Wasmuth

Photo 120. Flint

When local roadways are built simply for motorists, streets become problems, breeding crime, litter, disrepair of properties and other social problems. One of the greatest challenges to any town or city is funding road improvements. Bringing together a coalition of caring people to resuscitate decaying and unhealthy streets may be the biggest challenge.

Strategy 5. Sidewalks Must Be Comfortable

Did you know that sidewalks were rarely built in residential neighborhoods before the speed and sheer volumes of traffic became so challenging? Today, sidewalks are essential to reduce car and pedestrian accidents.

Sidewalks, however, need to be wide enough for at least two people to walk side-by-side—wider if they are in a shopping area where there are many walkers. At a minimum, residential sidewalks that are separated from the roadway and curb need to be five (5) feet wide. And sidewalks attached to curbs should be a minimum of six (6) feet wide.

Along high-speed streets, sidewalks should have buffers to protect people as they walk. Sidewalks should not suddenly come to a dead end and leave gaps, but should be connected and linked. Can you imagine what would happen if we built street-systems the same way that sidewalks are built—with all the gaps and dead ends?

Unfortunately, most communities permit sidewalks to be built in pieces. In fact, most communities do not require that sidewalks be built in advance of home construction. For example, when a house is built, *only* the portion of sidewalk in front of the home is installed. Yet in contrast, roads and utilities are installed in advance of an *entire* commercial center.

It is very important that sidewalks be built concurrent with street, utility and sewer installations—not later. It is often years, sometimes decades, before the last lots are sold and developed. Walkers find disconnected sidewalks bothersome.

Only well designed and complete sidewalk systems will work because piecemeal construction creates areas where there are gaps. When such practices are followed, most people will either walk in the street or

Photo by provided by Dan Burden

Photo 121. Flint

It takes many different groups of people coming together to rejuvenate and restore a city or neighborhood area that is decayed. During a charrette workshop, community leaders discuss solutions (see sidebar on page 67).

Photo by Dan Burden

Photo 122. Warren

Neighborhood sidewalks must comfortably carry two people walking side-by-side in one direction at a time. This requirement calls for sidewalks to be a minimum of 5 feet. Lesser widths cause many people to walk in the street or on someone's lawn.

Photo by Leslie Kettren

Photo 123. Milford

Although Milford is touted as one of the most walkable communities in America, it is not perfect. Here we see a sidewalk that dead-ends. In this location, all walkers are forced to walk out into the roadway.

totally give up on walking in their neighborhoods. In many instances when there are gaps in the sidewalk system, parents will end up driving their children to school, even when distances are short.

Along parking lots, private property or along other areas, there should be decorative walls, low, see-through fencing, shrubs and other features to form definite edges. All of these features should be attractive and easily maintained.

Curbing along streets is important in most neighborhood designs. The curbs should be built so that drivers cannot drive over them (non-mountable curbs). Unfortunately rollover-curbs, curbs that can easily be driven over, have been in common practice for decades. This type of curbing allows developers to cheaply build the streets for an entire neighborhood, without pre-planning for residential driveways.

However, rollover-curbs are not a good practice for people walking, since they allow drivers to park partly on the street and partly on the lawn—blocking the sidewalk, and sometimes blocking the entire walkway. Too few town leaders understand this basic need and how to define this walking space well.

Photo by Leslie Kettren

Photo 124. East Lansing

Streets that are located in shopping areas have even greater needs. For more comfortable walking where there are many people, such as in business and school district areas, sidewalks should be 8 to 12 feet wide.

Photo by Leslie Kettren

Photo 125. East Lansing

On roadways where there are higher speeds and volumes, walkers feel more comfortable and safer when there are bike lanes, on-street parking or some other physical buffer between the walkers and traffic.

Photo by Russ Soyring

Photo 126. Charlevoix

Decorative and beautiful sidewalks makes walking and shopping so much more special and enjoyable. This scene just as well could have been taken in winter with snow on the trees, wreaths of holly attached to the street lights and twinkle lights all aglow. Whatever the time of year, the walking area must provide an interesting and engaging atmosphere.

Photo by Dan Burden

Photo 127. Eastpointe

When sidewalks are set next to the curb, the minimum width of sidewalks should be 6 feet. While it appears that this sidewalk meets those requirements, I would not want to walk here. Would you?

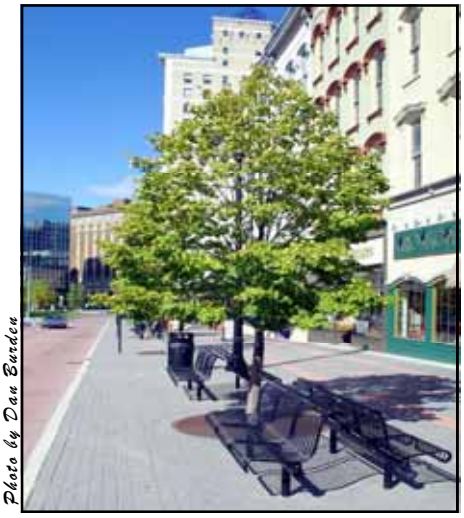


Photo 128. Grand Rapids

Highly successful downtowns and most pleasing settings of all call for a 50/50 ratio of street and sidewalk width, including edge treatments like hedges or planting strips. Large, successful downtowns, like Chicago or Boston, demand 20 to 30 foot sidewalk widths. .

Photo 129. Eastpointe

In suburban areas, planter strips of 4 to 6 feet, with landscaping and trees create ideal street buffers.

Photo 130. Ferndale

Fencing, shrubs, and other features facing the private property side, form edges to parking lots, open lots or other areas that must be crossed.

Photo 131. Holland

In downtowns, where sidewalks are often built to the curb, parked cars become important physical and psychological buffers between people and moving traffic.

Photo 132. Traverse City Bulb-out

This 8-foot sidewalk is very comfortable for crossing the street. Ramps are the full width of the sidewalk. Narrow corners keep the speed of turning cars low, and the crossing distance shorter. Walking and bicycling is not measured by the level of service, but by comfort. (See page 83 for more information on bulb-outs).

Photo 133. Marquette

I suppose any walkway is better than none! Other than a lone bicyclist, people walk single file here. I wouldn't want to shovel snow off this path in the winter or walk here after a hard rain.

Strategy 6. Streets Must Be Crossed With Ease

It's only natural for people to find ways to cross streets—even if there is no crossing point. Not many people will go more than 150 feet out of their way to cross the street. For this reason, well-built towns provide convenient crossing points every 300 feet. In fact, providing crossing points every 300 feet is especially important in downtown shopping areas, near schools and in neighborhood village centers.

The Federal Highway Administration has done extensive research and observations of people crossing streets. Out of that research came creative and helpful ways to assist people when crossing streets. Many cities have already built highly successful mid-block crossing points. Other common elements include carefully placed lighting, curb extensions, median crossing islands and well-marked crosswalks.

In the past 50 years, roads have become wider and faster. And unfortunately during that time, road designers have paid little attention to street crossings. If walking and bicycling are to safely work in communities, then road designers must build convenient and safe crossing points wherever people want to cross the street—whether it is at the street corner or between the intersections somewhere in the middle of a block.

Photo by Dan Burden

Photo 135. Marquette

When there are not enough well spaced crossing points, people will jaywalk because they become frustrated (look inside circles). Jaywalking creates unsafe and unpredictable movements. One of the most serious omissions in road design is the failure to build enough street crossings.

Photo by Leslie Kettren

Photo 136. East Lansing

Here we see another mid-block crossing point. Signage warns people to cross only when traffic clears. According to this sign, it is apparent that cars have the right-of-way in East Lansing—not people.

Photo by Dan Burden

Photo 134. Greenville

Greenville has built a beautiful mid-block crossing point to access parking located behind the commercial buildings. No signage is needed here to guide people to where they should cross.

Photo by Russ Soyring

Photo 137. Traverse City

Traverse City acknowledges that people have the right-of-way. Signage (yellow circle) warns drivers to stop for people who cross at this mid-block crossing point. There is debate whether this sign is legal or not, based on State law. It does however, seem to work well.

Photo by Dan Burden

Photo 138. Brighton

This street has a median built halfway across the street where vehicles are diverted into two lanes. This crossing provides greater safety for walkers and allows people to rest in the median if they are unable to cross the entire distance in one traffic light change.

Photo by Leslie Kettren

Photo 139. Rochester Hills

A this crosswalk a median is built halfway across the street. These types of crossings provide a safety-net for walkers and bicyclists when streets are too wide to cross safely.

Photo by Russ Sayring

Photo 140. Traverse City

Multiple -lane roads need advanced stop bars, signing, enhanced crosswalk markings, improved lighting, and some mechanized systems. High traffic speeds were a problem here so bulb-outs (also called bump-outs) and stop signs were installed, making it much easier, a shorter distance and safer for people to cross.

Strategy 7. Keep Traffic Separate and Low Speed

When drivers speed through neighborhoods, in school zones or in areas where we shop, we naturally feel a little uncomfortable and not completely safe. Generally in areas where cars speed, the quality of life and property values are reduced. Therefore, in neighborhoods and on Main Street, speeds should be kept low.

Research shows that there is a decline of courtesy starting at 25 miles per hour, a significant drop at 35, and little observed courtesy at speeds of 40 miles per hour and higher.

Although speeds should still allow traffic to move efficiently, there is rarely justification for traffic to move at speeds above 30 miles per hour in most neighborhoods and no more than 25 miles per hour in downtown areas. The best shopping places, such as the City of Holland's 8th Street, Beverly Hill's Rodeo Drive or Palo Alto's University Avenue in California rarely experience speeds above 20 miles per hour.

We know that streets that are designed and built as "fast streets" produce fast drivers. The faster a car is going, the less likely a walker or bicyclist is to survive a collision. That is scary! So why do road designers build FAST roads in our neighborhoods and in our urban shopping areas? Why do people who make decisions allow it?

Speed vs. Safety

The faster a car is going, the less likely a walker or bicyclist is to survive a collision

Speed	Chance of Survival
40 mph	15%
30 mph	55%
20 mph	95%

Many negative things affect us because we're so dependent on our cars. Things such as the high cost of gas, lost time waiting in traffic, and breathing bad air—not to mention the loss of 45,000 people's lives each year in the U.S.A. Is this still the American Dream?

Photo by Bekki Wasmuth

Photo 141. Saginaw County

Today, most cities and their suburbs and even small towns experience congestion. The amount of congestion may vary, but it is annoying congestion nevertheless. We are becoming a country of fat people, a population that is unhealthy and unfit, because we depend on our cars and technology to minimize the need to walk, climb stairs or even to change TV channels. While waiting in traffic, the world's oil reserves are being drained. The inefficiency of traffic congestion adds to pollution and global warming.

Photo by Bekki Wasmuth

Photo 142. Southfield

Here we see commuters going home from work on 8 Mile Road. Each workday some of them will spend approximately 1 1/2 to 2 hours in the car going back and forth to work. There is a loss of community pride as we spend our time in travel rather than with our family and friends. Dependency on the automobile isolates people.

Photo by Dan Burden

Photo 143. Grand Rapids

We cannot build ourselves out of congestion—there is no solution to congestion. Is it not time to think about other forms of transportation, rather than just dependence on the car?

Reducing the Speeds of Cars

As communities make the switch to safer and more appropriate speeds, they are learning how to stop traffic less often yet maintain overall trip times. In communities where there is a full-blown effort to reduce speeding, injuries are reduced from 30 to 70 per cent. At the same time, walking, transit (see sidebar below), bicycling and other modes of travel are greatly improved.

Transit

A Planners Dictionary, American Planning Association Planning Advisory Service Report April 2004, page 422.

Transit is the delivery of persons or goods from one place to another by means of a local, public or private transportation system. Passenger services provided by the public, private, or nonprofit groups include the following: commuter rail, rail rapid transit, light rail transit, light guideway transit, express bus, local fixed route bus, vans, and taxis.

For more information on transit and other issues such as crash and injury data, visit the Transportation Research Board's website at www.TRB.org.

Photo by Bekki Wasmuth

Photo 144. Clawson

This is a photo of downtown Clawson at the intersection of 14 Mile and Main Street. Historically the speed limit on Main Street was always 25 mph, but in 1995 the speed limit was increased to 35 mph at the request of the Police Department. They had received complaints from pass-through drivers. Unfortunately, a woman was killed crossing the street a couple of years after the speed limit was increased. Few people walk here now.

Photo by Dan Burden

Photo 145. Brighton

Here in the City of Brighton, we see streets that are very wide and straight—built for fast speeds. Towns that were largely built after WWII are finding they must make serious efforts at rebuilding, remarking and otherwise adapting their streets for lower speeds. Rarely will just one strategy or design feature work.

Traffic Impacts on Livability

Livable Streets, 1981

In the early 1980's, Donald Appleyard in Berkeley, California measured the impacts of traffic on livability.

Appleyard showed that streets with an average of 2,000 cars per day provided residents with an average of 3.0 friends and 6.3 acquaintances.

Streets with traffic volumes of 8,000 cars per day showed that residents had only 1.3 friends and 4.1 acquaintances.

For streets with 16,000 cars per day, the number of friends was .09 and the number of acquaintances was 3.1.

As the traffic volumes increased, the level of pride, sense of ownership and "sense of place" dropped dramatically as the traffic volumes rose.

2,000 cars/day	Low traffic Many associations on both sides of the street 3.0 friends/person 6.3 acquaintances/person
8,000 cars/day	Moderate traffic Reduced use of public space 1.3 friends/person 4.1 acquaintances/person
16,000 cars/day	Heavy traffic Few associations Few friends across the street .09 friends/person 3.1 acquaintances/person

Road Diets

The most common technique to reduce speeds is to reduce the number of lanes on a street. This involves removing non-essential traffic lanes. Road designers are essentially putting roads on "diets", helping them lose lanes and width. In the process, formerly "fat" streets often become leaner, safer, and more efficient. "Road dieting" (also called road conversion), is a new term applied to "skinnying up" streets into leaner, more productive roadways.

Most often the diet involves a 4-lane street that is reduced to 2- or 3-lanes. The 2-lanes are replaced with medians (turning lanes in the center of the road), bike lanes or edge treatments. The road looks

narrower, therefore most drivers slow down. Communities find that they can make many of these road conversions very inexpensively or at no cost by just using paint. They wait for lane markings to fade, which is quite often because snowplows scrape the paint off in the wintertime, or they make changes during construction when the road is resurfaced.

You might think that because the number of lanes is reduced that the road would not carry as many cars as it once did. You might ask where does the traffic go? Simple—it stays right there. Drivers rarely choose to cut through neighborhood streets because the roads still handle about the same amount of traffic per day. After all, that same road is still the most direct route.

There are many added benefits to the road diet. Once converted, walkers have to cross no more than one traffic lane at a time. Research shows that speeding is reduced and brought under control by the prudent driver. Crashes can be reduced anywhere from 15 to 70 per cent.

Almost all communities have candidates for road diets. If we think about the roads around and in our communities, we can see that most roads have been over-built. Some were originally built for the correct number of lanes, but then a new road or freeway took most of the traffic to a new location, and the road was never adjusted.

Photo by Dan Burden

Photo 146. Charlotte

This street used to be a four lane road (see the same street below), but went on a "road diet". You can still see the former center line before the 4-lanes were repainted to 2-lanes, with a turning lane in the middle, and bicycle lanes on each side of the street.

Photo by Dan Burden

Photo 147. Charlotte

This is the same street as the photo above, before undergoing a "road diet". Drivers exceeded the speed limit on a regular basis because the traffic lanes were wide and straight. Few people walked here because it was unsafe.

Short History Lesson
About Automobile Impacts

Crabgrass Frontier, page 247

"The environmental cost of car crashes between 1950 and 1980 was almost as high as the human toll. In 1984 the 159 million cars, trucks and buses on the nation's roads were guzzling millions of barrels of oil every day, causing traffic jams that shattered nerves and clogged the cities they were supposed to open up and turned most of the countryside to pavement. Not surprisingly, when gasoline shortages created long lines at the pumps in 1974 and 1979, behavioral scientists noted that many people experienced anger, depression, frustration, and insecurity, as well as a formidable sense of loss. Such reactions were possible because the automobile and the suburb have combined to create a drive-in culture that is part of the daily experience of most Americans."

Photo by Leslie Kettren

Photo 148. East Lansing

Grand River Avenue used to be a 4-lane busy street, but in 2000 it went on a "road diet" to become a 2-lane busy street with a center turning lane and bike-lanes along the sides for use by Michigan State University students. The roadway has been deemed a success because it still handles about the same number of cars per day—yet it now is a much safer and friendly street for walkers, bicyclists and drivers.

Photo courtesy of Dan Burden

Photo 149. Ferndale

This is Nine Mile Road before the "road diet". The traffic lanes were too wide and shoppers were not allowed to park on the street in front of stores. Businesses were locking their front doors and using that space for storage because most shoppers were entering the rear entrances where city parking lots are located.

Photo by Dan Burden

Photo 150. Ferndale

This is Nine Mile Road after the "road diet". Parking on the street was added and the sidewalks were widened enough so that there is even room enough for outdoor café seating (see photo 6).

The Story of Ferndale's "Road Diet"

One of the most successful road diets in the nation is Nine Mile Road in Ferndale. In the 1970s, decision-makers were only interested in getting traffic to pass through and out of the downtown. And so unwisely, they decided to widen the road.

In order to make Nine Mile wider, the road designers reduced the sidewalks to a very narrow section in front of the downtown shops and restaurants and took away parking on the street.

This was a big "oops" because by the time the City hired me in 1992, downtown businesses were closing left and right. In fact, business was so slow along Nine Mile Road that the shops locked their front doors and used the front entrances for storage areas. The only way to enter most of the stores was from the parking lot at the rear entrance to the buildings.

Along about 1998, after I left Ferndale and was working for Oakland County, the City hired a very progressive City Manager who believed in the philosophy of walkable communities. He worked with Oakland County and road designers to bring in Dan Burden to help redesign the street in a way that would bring economic strength back into this once vital and important shopping area.

When Nine Mile Road was finally rebuilt in 2000, this important commercial district went on a "road diet"—from 4-lanes to 3-lanes. Parking on the street was again

Photo 151 Marquette (before)

Here we see a stretch of roadway that is wide and straight—built like a race track. Speeds are fast here. There are no sidewalks for walkers and no bike lanes for bicyclists.

Photo 152. Marquette (after)

Here is the same stretch of roadway as in the photo on the left. But, the photo has been enhanced to show an added median and bicycle lanes . Research has shown that when improvements are made, such as pictured here, traffic speeds are reduced.

added and the sidewalks were widened enough so that there is now room for outdoor café seating.

Ferndale also planted many new street trees. The trees do a lot to "narrow" the look of the street, which makes people want to drive slower. The big benefit is that the trees provide shade and make the street friendlier to walkers. Today, you can see how the shops and street life have come back to life after years of speeding and traffic neglect.

Narrow Lanes

Many communities are finding that narrower lanes can also reduce speeds. Areas such as in East Lansing and Birmingham have made such discoveries. Although there is no change in the speed when lanes are reduced from 12 feet to 11 feet, a further reduction to 10 feet can reduce personal injury rates.

One of the best lane narrowing examples comes from Brighton where an overly wide neighborhood street was built. The day the street opened neighbors were already complaining about excessive speeding.

The city painted in a wide set of stripes along the edges. By restriping the lanes, this left a 20-foot driving lane for two-way traffic. For added emphasis they used a coral color to paint the spaces outward from the edges. The low cost treatment ($25,000 for 1.3 miles) reduced speeds by 7 miles per hour.

Photo 153. East Lansing

Narrow roads reduce speeds. This neighborhood roadway has bike lanes striped on both sides of the street. Notice that there is no painted center line. The street is easy to cross and residents find it easier to get out of their driveways because the look and feel of the street encourages drivers to use slower speeds.

Photo. 154. Brighton

*These bike lanes were colored coral to emphasize that something special is happening in this neighborhood—be aware drivers—**slow down**.*

Photo by Dan Burden

Photo 155. Birmingham (before)

Compare this photo to the one below. This is a beautiful street. When many street trees are present and traffic lanes are narrow, driving speeds become slower. The noise from the street is less and accidents are reduced. The safety of walkers and bicyclists is vastly increased.

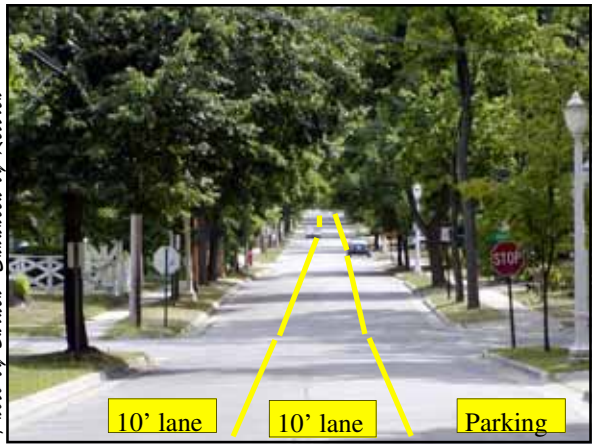


Photo by Burden Enhanced by Kettren

Photo 156. Birmingham (after)

Compare this to the photo above. In the "after" photo, I have graphically enhanced the photo to show traffic lanes that are 10 feet wide. This width lets cars pass each other safely and still allows for parking on one side of the street.

Photo by Dan Burden

Strategy 8. Build Bike Lanes

Over the past 50 years, streets have been built overly wide to make it easier for cars to go fast and faster. Many people who do a great deal of walking and bicycling consider most newly built streets as too wide. If you have ever visited towns that have historic districts, you have seen what I am talking about. In "old" towns, narrow streets just appear to be—and are—friendlier to walkers.

An extensive study in Longmont, Colorado determined that 24-foot wide streets were the safest. The most dangerous streets in terms of crash injuries were 36-foot or 40-foot wide streets. You can cross narrow streets quicker and safer. When crossing wider streets, it takes walkers a longer

Photo by Dan Burden

Photo 157. Webberville

Street conversions (see photo on left) are as much a process as they are a product. It is essential to involve the public through highly interactive sessions. Here we see community leaders participating in a walking audit where they first walk the areas of concern, then meet together with other citizens, residents and business owners to discuss the redesign of the street.

Photo 158. East Lansing

(left) Here we see another "road diet". This was originally a 4-lane street, now converted to 2-lanes. To decrease speeds, bike lanes have been painted on both sides of the street with a turning lane in the middle. Traffic goes slower because the look and feel of the narrow lanes instinctively makes the driver slow down.

time to cross the street—which increases the amount of time they are exposed to being hit by a car.

For safety and efficient movement of all modes of travel, adding bike lanes and wider shoulders [8] make a lot of sense.

The Oregon Department of Transportation officials in the Bicycle & Pedestrian Facility department document 20 benefits from shoulders and bike lanes, only two of which are benefits specifically for bicyclists (see sidebar below).

Benefits of Urban Bike Lanes to Other Road Users

Oregon Department of Transportation
www.AskODOT@state.or.us

Urban streets have to satisfy many needs. Various transportation modes use them, and they provide local access to a community as well as mobility for through traffic. Many of the benefits of shoulders also apply to bike lanes in urban areas, whether they were created by restriping or by widening the road. Some street enhancements cannot be measured with numbers alone, as they offer values (e.g. trees) that simply make a community nicer. The following list should be viewed in this context. Bike lanes can provide the following benefits:

For Pedestrians

1. Greater separation from traffic for people walking on the sidewalk, especially in the absence of on-street parking or a planter strip, increasing comfort and safety. This is especially important to young children walking, playing or riding their bikes on curbside sidewalks.
2. Reduced splash from vehicles passing through puddles (a total elimination of splash where puddles are completely contained within the bike lane).
3. An area for people in wheelchairs to walk where there are no sidewalks, or where sidewalks are in poor repair or do not meet ADA standards.
4. A space for wheelchair users to turn on and off curb cut ramps away from moving traffic.
5. The opportunity to use tighter corner radii, which reduces intersection crossing distance and tends to slow turning vehicles.
6. In dry climates, a reduction in dust raised by passing vehicles, as they drive further from unpaved surfaces.

For Motorists

7. Greater ease and more opportunities to exit from driveways (improved sight distance).
8. Greater effective turning radius at corners and driveways, allowing large vehicles to turn into side streets without off-tracking onto the curb.
9. A buffer for parked cars, making it easier for motorists to park, enter and exit vehicles safely and efficiently. This requires a wide enough bike lane so bicyclists aren't "doored".
10. Less wear and tear of the pavement, if bike lanes are restriped by shifting travel lanes toward the center of the road (heavier motor vehicles no longer travel in the same well-worn ruts).

continued on next page...

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Benefits of Urban Bike Lanes to Other Road Users

Oregon Department of Transportation
www.AskODOT@state.or.us

Bike lanes are an essential component of healthy streets. In this list of 20 benefits of bike lanes, only two are for bicyclists. As traffic volumes and speeds increase, bike lanes or paved shoulders become essential. Bike lanes can provide the following benefits:

For other Modes of Transportation

11. Transit—A place to pull over next to the curb and out of the traffic stream.
12. Delivery vehicles (including postal service)—A place to stop outside of the traffic stream.
13. Emergency vehicles—Room to maneuver in stopped traffic, decreasing response time.
14. Emergency vehicles—Room for motorists to pull into to allow the emergency responder to get by.
15. Bicyclists—Greater acceptance of people bicycling on the road, as motorists are reminded that they are not the only roadway users.
16. Non-motorized modes—An increase in use, by increasing comfort to both pedestrians and bicyclists (this could leave more space for motorists driving and parking).

For the Community (livability factors)

17. A traffic calming effect on busy roads when bike lanes are striped by narrowing travel lanes.
18. Better definition of travel lanes, where the road is wide (lessens the "sea of asphalt" look).
19. An improved buffer to trees, allowing tree canopies to have a wider spread, which also has a traffic calming effect.
20. A means to eliminate wide travel lanes that encourages speeding.

Photo by Russ Soyring

Photo 159. Traverse City

Wouldn't it be nice to have such a beautiful destination to bike to in your neighborhood? Bicycling is fun and is a good way to exercise—if there are safe streets or paths on which we can ride. Bike lanes, bike paths or wide shoulders at the edge of streets give us that safety net.

Photo courtesy of City of Charlotte

Photo 160. Charlotte, North Carolina

This type of bike lane, marked on the left of parking lanes, is common in some states. There is greater acceptance of people bicycling here. The markings remind drivers that they are not the only roadway users.

Photo by Dan Burden

Photo 161. Grand Rapids (before)

This street has a nice sidewalk for walkers. However, drivers speed here because the street looks like a race track with wide and straight traffic lanes (see below).

Photo by Dan Burden

Photo 162. Grand Rapids (after)

One solution to decreasing the speeds of drivers is to paint bicycle lanes on both sides of the street. Bicyclists can now ride on the street and not interfere with walkers on the sidewalk (see below).

Photo by Dan Burden

Photo 163. Grand Rapids (after)

This time we see the bike lanes in color. If you don't like this color—pick any color. The point here is that drivers will see the bike lanes better, which increases safety and the color adds to the atmosphere of the street (see above photos).

Wide shoulders

Today, communities are realizing that the most efficient, safe and workable roadways include wide paved shoulders. These paved shoulders can easily be painted and marked for bike lanes. Also, overly wide roads can be striped to create bike and/or walk lanes to give the street a narrower appearance—which tends to slow drivers down, especially when the lanes are made less than 11 feet wide.

Photo by Dan Burden

Photo 164 East Lansing

This street has undergone a "road diet". Bike lanes are both practical and often essential when 4-lane roadways are converted to 2-lanes. The added bike lanes not only provide an area for bicycling, but also provide a wide shoulder that buffers people who walk on the sidewalk.

Photo by Leslie Ketten

Photo 165. Highland Township

This is a beautiful road. But, would you want to walk or ride a bike here? This photo was taken near several residential neighborhoods, where the cars travel at high speeds. Milford High School is just over the crest of the hill, yet no students walk here—it's too dangerous. A wide shoulder could be designed and built here— without removing the beautiful historic trees—that could serve as a bike lane and walking path for residents.

Strategy 9. Keep Traffic Moving

Drivers generally don't care how fast they are driving to get somewhere. They are more concerned by the number of times they have to stop and wait. Too many stop signs, traffic signals and other delays can lead to high levels of driver frustration—or "road rage".

Road rage is when you're competing for asphalt, and if you so much as hesitate or make a wrong move, your neighbor immediately punishes you, by honking the horn, taking your space, running into you, or committing some other antisocial act.

Stop and go traffic can increase road rage in almost every driver I know. Like drinking, driving has become a well-worn excuse for all sorts of rudeness and aggression. How often have you heard the excuse—"It couldn't be helped; he cut me off"?

Do you know anyone that enjoys driving in such conditions? Suffice it to say that only rarely do two people taking a walk gesture violently at each other as they pass!

Traffic Calming Strategies

During the last 100 years, roads have been widened and straightened to make it easier for cars to go faster and to allow for more cars to use the roadway at the same time.

Widening and straightening roads made driving more efficient, but often made conditions for walking and bicycling darn near impossible. Residents who live near these roads complain about the loud noise, smelly fumes, and the inability to easily get in and out of their driveways.

Traffic calming (also called traffic management) is the name for road design strategies to reduce the speed and number of cars [9].

Photo 166. Imlay City

Bulb-outs narrow traffic lanes and reduce the distance of walkers crossing the street. Here we see a bulb-out under construction. See photo 132 on page 70 for another example.

Photo 167.

Cute huh! I do not recommend this art work as a traffic calming strategy or device. However, if it was placed in the middle of a median, I would personally slow down because it "says" this is a special place.

Traffic Calming Strategies and Devices

Evaluating Traffic Calming Benefits, Costs and Equity Impacts
www.vtpi.org

This table summarizes common traffic calming strategies. Construction projects often involve several of these measures. Other sources: www.wsdot.wa.gov and www.pedbikeimages.org

Type	Description
Bulb-outs / Bump-outs	Curb extensions, planters, or centerline traffic islands that narrow traffic lanes to control traffic and reduce pedestrian crossing distances. Also called "chokers", "pinch points"
Speed tables, raised crosswalks	Ramped surface above roadway, 3"-4" high, 10'-20' long
Mini-circles	Small traffic circles at intersections
Median island	Raised island in the road center (median), narrows lanes and provides pedestrians with a safe place to stop
Channelization islands	A raised island that forces traffic in a particular direction, such as right-turn-only
Speed humps	Curved 3"-4" high, 10'-13' long hump
Rumble strips	Low bumps across the road, makes noise when driven over
Chicanes	Curb bulges or planters (usually in sets of 3) on alternating sides, forcing motorists to slow down
Roundabouts	Medium to large circles at intersections
Pavement treatments	Special pavement textures (cobbles, bricks, stamped concrete, etc.) and markings to designate special areas
Bike lanes	Marking bike lanes narrows traffic lanes
"Road diets"	Reducing the number and width of traffic lanes
Horizontal shifts	Lane centerline that curves or shifts
2-lane narrows to 1-lane	Curb bulge or center island narrows 2-lane road down to 1-lane, forcing traffic for each direction to take turns
Semi-diverts, partial closures	Restricts entry and exit to/from neighborhood. Limits traffic flow at intersections
Street closures	Closing off streets to through vehicle traffic at intersections or midblock
Stop signs	Additional stop signs, such as 4-way stop intersections
"Neotraditional" street design	Streets with narrower lanes, shorter blocks, T-intersections, and other design features to control traffic speed and volumes
Perceptual design features	Patterns painted into road surfaces and other perceptual design features that encourages drivers to reduce their speeds
Street trees	Planting trees along a street to create a sense of enclosure and improve the walking and bicycling environment
Woonerf, shared street	Streets with mixed vehicle and pedestrian traffic, where motorists are required to drive at very low speeds
Speed reductions	Traffic speed reduction programs. Increased enforcement of speeding violations

Photo 168. St. Johns (before)
Compare to photo below

Photo 171. Eastpointe (before)
Compare to photo below

Photo 169. St. Johns (after)

Compare with photo above. Here is a different kind of traffic calming strategy. By building a small raised median island in the center of the road and adding bike lanes, drivers know they are entering a special place and should slow their speeds.

Photo 172. Eastpointe (after)

Compare with photo above. The channelized island in the before photo was small and almost unseen by drivers. By making the island larger and giving it some "life" and color, traffic can better see why it is being forced in a particular direction.

Photo 170. Grand Rapids

Patterns painted into the road surface encourages drivers to reduce their speeds.

Photo 173. Kalamazoo

Special pavement textures designate special areas and calms traffic.

Photo 174. Ferndale

Brick pavers and other pavement treatments and markings calm traffic and create a sense that you're in a special place.

Photo 175. Grand Rapids

This is a very special street with pavement treatments that used to be commonly used before concrete became the favorite of road designers. You get what you pay for—and this beautiful street is respected by all drivers who keep their speeds low.

Photo 176. Dimondale

Plantings along a street—especially when they are plentiful and showy—creates a sense of enclosure and improves the walking environment.

Photo 177. Traverse City

Here we see well cared for flowers growing into the street. People love to see this—public work crews don't. This is a time when you need courage. DO NOT let the cost of maintenance over ride the values of livability.

Photo 178. Ferndale

As the tires of vehicles pass over the brick pavers, drivers sense that something feels and sounds different. Heads up! People know that something has happened so they pay more attention to their surroundings.

Photo by Dan Burden

Photo 179. Marquette (before)

Compare to the photo below. This road has little character. With no road markings, it looks and acts like a race track.

Photo by Dan Burden

Photo 180. Marquette (after)

This is the same street as the photo above. It has been enhanced with two traffic calming strategies—a bike lane was added and a median. Makes a big difference, don't you think?

Photo by Dan Burden

Photo 181. Dimondale

This diverter serves as a small pocket park. It's primary purpose, however, is to partially restrict cars from entering the neighborhood.

Photo by Dan Burden

Photo 182. Birmingham

Street trees planted along a roadway is a great traffic calming strategy. Trees create a sense of enclosure that makes drivers reduce their speeds. It also improves the look of a street and increases property values.

Photo by Dan Burden

Photo 183. Farmington Hills

A series of speed humps were placed on this street to slow traffic down. They are approximately 3" high and 22' feet long. Farmington Hills has constructed these speed humps on several of their residential streets. Most residents like them—visitors do not.

Photo 184. Brighton

This diverter limits traffic flow at the intersection and directs vehicles either to the right or to continue straight through. The raised island in the center narrows the lanes and provides walkers with a safe place to stop as they cross the street. There are many different solutions to calm traffic—and no one solution can become the basis to solve all problems. Every traffic calming project is unique, so each project should be evaluated individually based on the conditions of the area.

Photo 185. Brighton

This is the same intersection as the photo above showing cars making a left hand turn.

Lower Speeds Can Reduce Congestion

Of course, if we want drivers to slow down, then we need to change the expectations of being able to drive fast. According to Walter Kulash [10], a noted traffic calming engineer, some people love traffic calming—some hate it—and others have mixed feelings. Kulash has done many traffic studies all over the U.S. and Canada, and has passed along some of the results to me.

At first, I found it hard to believe one of his findings. He discovered that streets move cars better at 30 miles per hour than at 45 miles per hour. Although I was skeptical, Walter assured me that this is true. If roads are designed for slow travel by cars, then over time drivers will expect to drive slowly, which reduces congestion. However to change the expectations of drivers, the strategy should be to design nearly all streets for slow speeds, community-wide, especially residential streets, because these are the places where our children, seniors and pets will be.

An added bonus to reducing speed limits is the benefit of fewer incidences of road rage—and related hostile driving. Road rage and fast driving need not be an inevitable outcome. Unfortunately, there are few road designers who understand that widening a road (and consequently allowing for faster speeds) does not solve traffic congestion problems, but widening the road *does* increase the number of road rage incidents!

This point is important, so I want to be sure we all have the same understanding of what happens when roads are widened. **Widening the traffic lanes on a roadway encourages faster speeds.**

Widening a road to add additional traffic lanes (for example, making a 2-lane road into a 4-lane road) does not automatically increase congestion right away, it simply invites more cars to travel on the road. A wider road has more traffic lanes which allows for the road to handle more cars at the same time.

Capacity (the ability of the road to handle a certain number of cars at the same time) drops with speeds faster than 30 miles per hour. Therefore, if you want to reduce congestion in your town—push for lower speed limits on all roads posted between 35 and 50 miles per hour.

What would you rather have—a congested 2-lane road or a congested 4-lane road in your community?

Photo by Bekki Wasmuth

Photo 186. Clawson

Here we see a neighborhood with a proliferation of stop signs that were installed for the purpose of slowing traffic—however, what they do is make people frustrated, increase mid-block speeds and tempt drivers to ignore the signs.

Photo by Dan Burden

Photo 187. Grand Rapids

This mini-circle adds beauty to the street and slows down traffic without causing drivers to come to a complete stop. The street becomes quieter because drivers don't "speed spike". Mini-circles take away the need for stop signs, making people less frustrated.

Mini-Circles vs. Stop Signs

Communities today are taking stronger measures to rethink how many stop signs and traffic signals are needed. In the photo above we see a neighborhood with a proliferation of stop signs that were installed for the purpose of slowing traffic down—but they make people frustrated. As a result, the stop signs are ignored—and we have "speed spiking" and "rolling stops" occurring.

"Speed spiking" is when drivers travel faster between stop signs than they otherwise would. Or worse, they choose to drive on other nearby streets—and speed there to make up for lost time. Another negative driving habit is the "rolling stop" where drivers do not come to a full stop at a stop sign.

A stop sign also generates a lot of wasted fuel. It takes about 1/100 of a gallon of gas to stop a car and then return to the traveling speed. That's one gallon for every 100 cars that stop!

There are better ways to slow traffic in neighborhoods, such as building mini-circles at intersections. Mini-circles are a traffic calming technique that reduces traffic speeds and crashes, and are a beautiful addition to any street scene.

One important tip about mini-circles—I would encourage the plants and flowers to be kept low and well trimmed. This not only provides safe passage through the intersection, but also eliminates the possibility of a small child deciding to use the mini-circle as a hiding place.

Mini-Circles

Victoria Transport Policy Institute
www.vtpi.org

Mini-circles, also incorrectly called mini-roundabouts, are small traffic circles (usually 10 to 25 feet in diameter) placed in existing low-volume intersections as traffic calming devices. They reduce traffic speeds and crashes.

Modern Roundabout

One of the most powerful tools for keeping traffic in motion is the roundabout. Roundabouts are widely supported by a growing number of road designers. They are an efficient and safer alternative to intersections with traffic lights.

States like Florida, Washington, Vermont, Maryland and Colorado have as many as 100 roundabouts in design or in operation. Dozens of other states like California, Oregon, North Carolina and Missouri have built and are testing many new roundabout designs.

Roundabouts are much smaller than the rotaries you may have experienced while driving on the East Coast. It is expected that within 20 years, cities the size of Detroit could have over 1000 roundabouts installed, with improved traffic flow and management and fewer lives lost each year.

The Michigan Department of Transportation has encouraged several communities to build and test roundabouts

Photo by Leslie Kettren

Photo 188. Seattle, Washington

I recently took a trip to Seattle and photographed these mini-circles. There are two in this photo—in fact, there is a series of these along the street. Mini-circles are located in the very center of the intersection. They were place here instead of stop signs. As I photographed this one, I was startled to see a cat asleep on a bed of catnip in the center. It was evident to me that there is a great deal of neighborhood pride associated with these mini-circles!

Photo by Leslie Kettren

Photo 189. Seattle, Washington

Seattle has over 200 mini-circles placed at intersections throughout its neighborhoods and almost every mini-circle is different. Some have planted trees, or flowers or some kind of artwork that is unique to each neighborhood.

Definition of a Modern Roundabout

A roundabout is a raised island that is usually landscaped and located at the intersection of two streets. Modern roundabouts are modest in size and require any vehicle entering, to slow to a maximum of about 15 miles per hour, and yield.

The majority of roundabouts are limited to a single circular traffic lane, however in some unique locations, roundabouts are built with two circular traffic lanes—although personally, I would prefer not to drive in a roundabout that has two lanes.

Roundabouts are widely promoted by traffic engineers (at least by those who "get it") as an efficient and a safer alternative to signalized intersections.

in Michigan. For example, there are currently four roundabouts in Oakland County, either under construction or fully operational. Construction of more than 11 more is planned as part of a $100 million proposal to relieve traffic congestion in West Bloomfield Township and Farmington Hills.

Milford's Tale

Community leaders in the Village of Milford are also discussing the benefits of building two or more roundabouts near the historic downtown to slow traffic as drivers enter and leave the shopping area. But there is a story here, as there probably is in every community wherever a roundabout is first suggested.

I was a council member in Milford in 1998 when I first suggested building a couple of roundabouts near the downtown. Of course, I had researched how roundabouts functioned and I was full of enthusiasm about the possibilities. I gathered mounds of information, including a couple of videos that demonstrated how roundabouts function—one video showed two roundabouts in Vail, Colorado and the other showed one in Norway. All of the roundabouts were built in climates similar to Michigan.

Of course attitudes back then are not what the are today in Milford. I showed the videos during a council meeting to expose other decision-makers, Village staff and the public about how they functioned. One of the council members didn't want anything to do with roundabouts and refused to discuss them. In fact, out of sheer cussedness he turned his back to the screen and refused to watch during the presentation—telling everyone they were "just plain dumb."

At the same time as the Council presentation, I gave the videos to the Village engineer to review. After a month I still hadn't heard any feedback from him—so I called and asked him what he thought.

Photo courtesy of the City of Midland

Photo 190. Midland

The City of Midland has discussed building a roundabout to replace Ashman Circle for the last five years. This aerial photograph shows the current configuration of the circle.

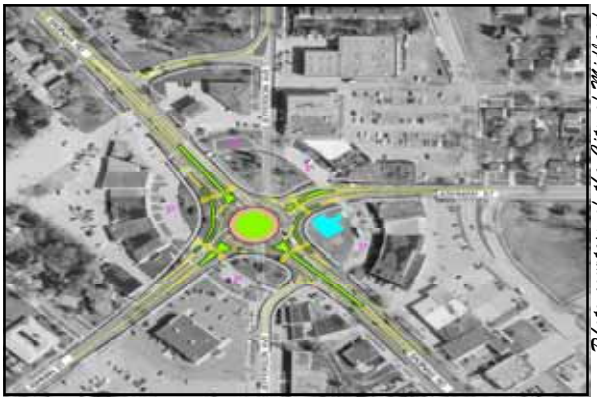


Photo courtesy of the City of Midland

Photo 191. Midland

Here we see the proposed roundabout concept design drawn as an overlay on the aerial photograph.

Photo courtesy of the City of Midland

Photo 192. Midland

This is a schematic drawing of the roundabout concept design that is proposed to replace Ashman Circle. The roundabout concept was developed by the City of Midland and DLZ, Inc. of Lansing.

He said with little enthusiasm, "They won't work in Milford because there isn't enough space at the intersections."

He admitted that he had made that assumption without any kind of preliminary design investigations. I knew that he was *not* keen on roundabouts so to test this, I asked him a couple of questions about the videos—and I could tell from his answers that he had never watched them!

Here's what I think the engineer was really thinking—he didn't know how to build a roundabout and didn't want to bring in a competitive engineering firm who had the expertise. I also think he didn't want to tackle the political situation created by the negative attitude of the Council member who had refused to even watch the video!

The attitudes of that Council member and engineer are not uncommon. The major reason that Milford is entertaining the possibility of building roundabouts now in the Village is because that engineer is no longer employed there. The Village is using the same engineering firm, but replaced him with another engineer who is more open to finding better ways of moving traffic.

So, if this story sounds familiar, don't give up. Keep plugging away at those old-fashioned attitudes. Change *can* and *does* happen!

Photo 193. Okemos

This is Michigan's oldest roundabout, built in 1999. It is located near a bustling shopping mall just off Grand River Avenue. Note the attention to safe crossing points for walkers.

Photo 194. Rochester Hills

One of Michigan's newest roundabouts is in Rochester Hills. In fact, there are two roundabouts on Tienken Road that are just about 1/2 mile apart. These roundabouts have helped to make the area safer, especially for the school buses, teachers and students that travel to and from the high school nearby.

Photo 195. Brighton

Another recent roundabout was built in Brighton. Neighbors and drivers appreciate that there is no longer a traffic light here to direct traffic. Today, the intersection is more beautiful and drivers no longer have to wait for the traffic light to turn from red to green in order to proceed.

Photo 196. Brighton

This is another view of the roundabout in Brighton. Roundabouts help to move traffic more safely by lowering speeds—yet keep traffic moving without backups caused by traffic signals.

Photo courtesy of Traverse City

Photo 197. Traverse City

This is an aerial view of the location for a proposed roundabout in Traverse City.

Photo courtesy of Traverse City

Photo 198. Traverse City

Here we see the proposed concept design drawn as an overlay. Traverse City officials held many public meetings which brought residents, business owners, city staff and other interested people together to discuss the possibility of building a roundabout. Unfortunately, discussions broke down and the project is on hold.

Facts About Roundabouts

Adapted from DLZ, Incorporated, Lansing, MI

1. On average, roundabouts result in a 40 percent reduction in crashes, an 80 percent reduction in injuries and a 90 percent reduction in accidents in which people are killed or seriously injured. One reason is that there are few points for traffic conflicts, such as head-on left turns or angle crashes. Another reason is because speeds are greatly reduced.
2. An Australian study found the severity of crashes was lower than at other intersections because speeds were slower. Pedestrians were most likely to be hurt on the roundabout approaches and circulating roads, not on exits. Pedestrian crashes generally drop 50%, while severity of injuries drop even more.
3. It is recommended that bicyclists either circulate just as any other vehicle around the roundabout (the roundabout should not be marked with bike lanes), or circulate around the roundabout on wide pathways that both bicyclists and walkers can use.
4. In some places, pedestrians who are visually impaired have expressed concerns that they cannot cross roundabouts easily because there is more traffic and it moves more slowly, making it hard for them to hear if it is safe to cross. However, issues to meet the needs of visually impaired pedestrians can be addressed through other effective designs.
5. In most situations, traffic moves well with few delays.
6. There is room in the center for attractive landscaping.
7. Roundabouts are relatively easy to modify.
8. Roundabouts don't fail when power is out!

Woonerf (or shared street)

One of the most intriguing design innovations of the last 25 years has been the Woonerf—or shared street (see diagram on page 94). The concept of the shared street was first developed in the Netherlands and has since gained popularity in several European countries. Shared streets combine the activity of people with cars on one shared surface.

The street primarily functions as a residence, a playground, and a meeting area. In addition, a shared street has cars that travel through it and provides parking space, but it is not built for through traffic.

The shared street is fully adaptable to and suitable for any residential street setting, including American cities and in the suburbs with certain street

layouts. For example, multifamily housing developments, with large numbers of children and only local traffic, cul-de-sacs and looped streets could be adapted.

Medium-density residential streets might also be suitable candidates for redesign. In addition, neighborhoods that have connected streets—usually a grid pattern—could benefit from the shared street concept because it could eliminate some of the cut-through traffic. Building a shared street could conceivably increase safety and livability in your neighborhood—yet still remain connected and linked to other neighborhoods and to the community at large.

Building the shared street concept is a real opportunity for communities to take a real step toward change. I challenge you to investigate this concept further with a road designer who is willing to step outside-the-box and be a leader in finding different ways to design neighborhood streets. Residential streets are not affected by traffic like other busy streets—and the risk of accidents is very low [11]. These streets should be under the design jurisdiction of an architect, landscape architect and planner—rather than the engineer. The shared street design concept can promote a community that is safer, child-oriented, and much more beautiful.

Woonerf (or shared street)
How Do They Work?

Streets and the Shaping of Towns and Cities, Michael Southworth and Eran Ben-Joseph, pages 108-110

"In the shared street or woonerf, pedestrians and vehicles share the same space, which is designed to slow traffic and to support play and social uses. Since motorists sense they are intruding into a pedestrian zone, they drive more cautiously and accident rates decline…

The underlying concept of the shared street system is one of integration, with an emphasis on the community and the residential user. Pedestrians and children at play, bicyclists, parked cars, and moving cars all share the same street space.

Even though it seems these uses conflict with each other, the physical design is such that drivers are placed in an inferior position. Such conditions are actually much safer for the pedestrian than in common residential street layouts.

By redesigning the physical aspects of the street, the social and physical public domain of the pedestrian is reclaimed. Since this "emancipation" of the pedestrian environment is done with full integration of vehicular traffic, it is not an anti-car policy."

Woonerf Design Characteristics

- It is a residential, public space.
- Through traffic is discouraged.
- Pedestrians and cars share paved space, with pedestrians having priority over the entire street. Walking and playing are allowed everywhere.
- It can be a single street, a square (or other form), or a combination of connected spaces.
- Its entrances are clearly marked.
- There are no conventional, straight stretches of pavement with raised curbs, and the pavement (travel lane) and sidewalk (footway) are not rigidly marked.
- Physical barriers and deviations, bends, and undulations restrict car speed and movement.
- Residents have car access to their dwelling fronts.
- The area has extensive landscaping and street furnishings.

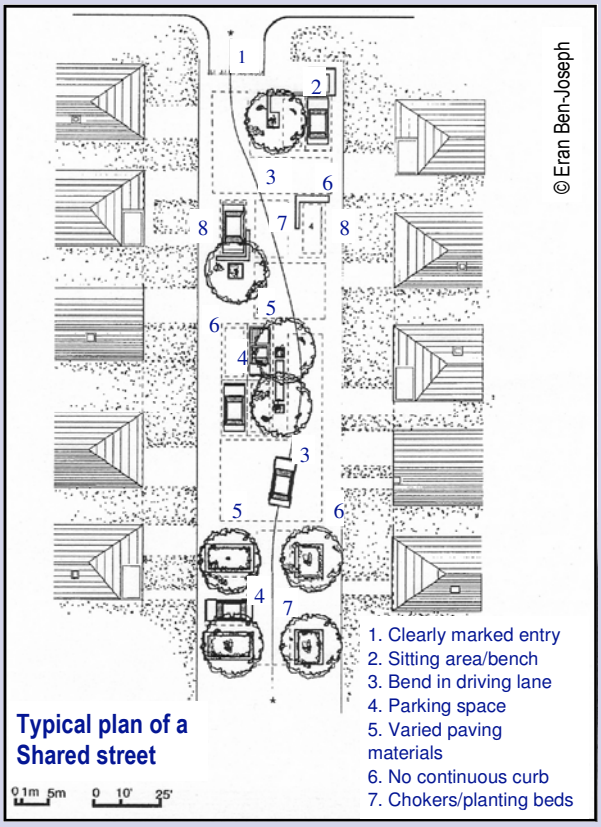


Diagram 7.
Typical Plan of a Shared Street [12]

In the shared street or woonerf, cars and people share the same space, which is designed to slow traffic and to support play and social uses. Since drivers sense they are intruding into a pedestrian zone, they drive more cautiously and accident rates decline. The maximum speed in a shared street was recorded at 13.5 miles per hour.

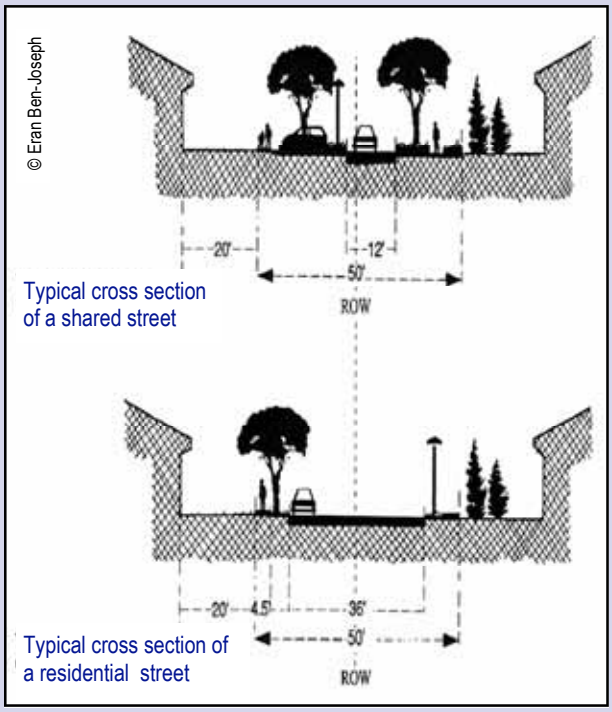


Diagram 8.

Shared Street
vs.
Typical Residential Street

Compare this typical cross section of a shared street to that of a typical residential street. In 1990, a nationwide study in The Netherlands found that mothers, as well as children, consider the shared street safer than an ordinary residential street. Moreover, residents are willing to accept the restraints on traffic and driving in order to improve their social and residential environment.

Strategy 10. Build Compact Intersections

It is not always possible or desirable to keep traffic in motion using roundabouts. Roundabouts in urban areas should be built and designed to keep traffic speeds at a slower pace.

But even when a roundabout is present, traffic will still speed around corners at the intersections if they are too wide. Therefore, urban intersections need to be built compact to keep speeds low and to keep the distance shorter for when people cross the street.

Compare the three photos on this page. In most new subdivisions that were built after World War II, the intersections have wide corners. Wide corners are built this way so that drivers do not have to slow down as much when making turns. So when walkers want to cross the street, they have to contend with cars that are going fast. The distance that walkers have to cross is greater—which means that walkers are exposed to the threat of an accident for a much longer period of time. Picture in your mind young children or seniors crossing the street more slowly because they aren't as able to cross as quickly as healthy adults (see photo 221 on page 111).

Photo by Dan Burden

Photo 199. Grand Ledge

Here we see the arc of the curb in a new subdivision. The sweeping curve lets cars go faster because the turn is not as sharp, allowing cars to go faster than in traditional neighborhoods.

Photo by Dan Burden

Photo 200. Grand Rapids

Compare this photo to the one below. Here we see the intersection of a newer subdivision. The large arc of the curb is well over 25 feet. A wide corner lets cars go faster because the turn is not as sharp. As a result, the distance to walk across the street is 40 feet or more. In short, the modern curb forces people to walk twice as far in the path of a car which is going twice as fast as in a traditional neighborhood.

Photo by Leslie Retter

Photo 201. Imlay City

When compared to the other two photos on this page, this setting shows what people-friendly intersections look like in traditional neighborhoods. The small arc of the curb is only 3 to 4 feet. A tighter or narrower corner forces drivers to slow down, which keep speeds lower. As a result, the distance to walk across the street is only about 20 feet.

Curb Radius Trade-Offs
Traditional (compact intersections) vs. New Subdivisions

City of Charlotte Urban Street Design Guidelines
March 2003, Charlotte, North Carolina

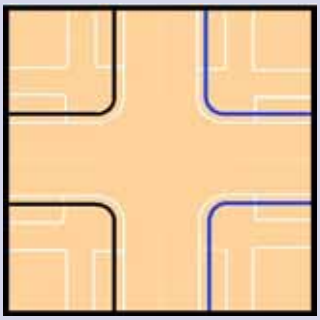


Diagram 9.

Diagram 9.
A tight radius:
Slows turning vehicles
Minimizes pedestrian crossing distance
Reduces overall width of intersection
But:
Larger vehicles may have to encroach into oncoming lanes to make right turn

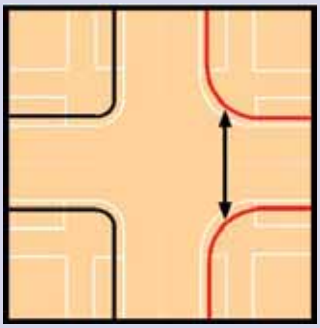


Diagram 10.

Diagram 10.
Increasing the radius:
Allows larger vehicles to make the turn without encroachment
But:
Increases pedestrian crossing distance
Allows higher turning speeds for vehicles, particularly autos
Creates more pedestrian exposure
Increases overall dimensions of intersection

Bringing crosswalks back from the radius:
Reduces pedestrian crossing distance
Still allows larger vehicles to make the turn
But:
Reduces visibility of pedestrians to turning motorists
Still allows vehicles to turn at higher speeds

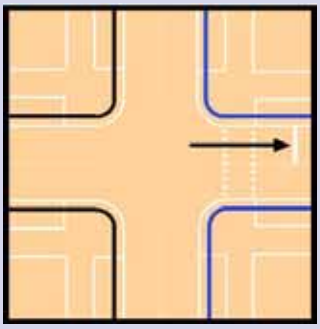


Diagram 11.

Diagram 11.
A tight radius, with advanced stop bars:
Mitigates those pedestrian issues
Allows larger vehicles to make the turn (slowly)
But:
Is infeasible if right turns on red are desired

And so on…

Traffic Calming Perspectives

Traffic Calming Strategies	One Perspective	Another Perspective
10’ Traffic Lanes	Slows down vehicles	Too narrow for buses
Neighborhood Streets (local residential streets	1 moving lane 1 parking lane	No bicycle accommodations
Mid-block crossings	Needed if intersections are too far apart	May be unsafe if vehicle speeds are too high
Medians	Provides refuge for pedestrians	Increases width of street and traffic speeds

Channelized Islands and Median Noses

Some overly wide, complex intersections require added features such as channelized islands and median noses.

Channelized islands are raised areas in the middle of the road. They narrow the traffic lanes and provide walkers with a safe place to stop when crossing a busy street. They also force traffic in a particular direction, such as a right-turn-only.

Median noses are also raised islands that slow cars down to a safer speed when turning left (see photo 202).

Photo 202. Brighton

This intersection in Brighton was rebuilt using channelized islands on all four quadrants. Traffic flow has improved and crashes have come down a record 74%. Walkers now use the channelized islands as stepping stones. The once vast crossing distances are tamer.

Photo 203. Marquette

Leaders in Marquette are discussing how to reduce crashes and make this intersection safer for pedestrians as well as drivers. This proposed channelized island will force traffic to either turn right or go straight through. The island will slow traffic and create a safety refuge for walkers.

Photo 204. Eastpointe

Leaders in East Pointe discussed this proposal for reducing crashes. Each traffic calming strategy and device must fit individual circumstances—no one solution will work in every situation.

Photo 205. Webberville

(right) Leaders in Webberville discussed this proposal to solve traffic problems near a school. Communities are learning the advantage of using high visibility crosswalk markings, bike lanes and median noses. The higher the speeds and the more traffic there is, the more important it is to design and mark the street so that drivers are more likely to yield to walkers. When drivers have early and clear indications of crossing points, safety increases.

Strategy 11. Convert One-Way Streets to Two-Way

Back in the 1950s, American road designers went through a craze of changing two-way roadways into one-ways. It was thought to help get more cars through an area faster.

These road changes were often financed for free, such as in Alma. To some extent this technique solved some perceived or real problems to help get drivers through town or home from downtown faster. In many cases the results were marginal and at best, only hastened business and residential flight to the suburbs.

One-way streets increase traffic speeds, create confusion for tourists and other visitors, and make it necessary to drive farther to get to a destination. They also take away any joy of a walk because the cars whiz by too fast!

Today a number of Michigan cities, as well as cities throughout the nation, are studying the benefits of going back to two-way street designs. Towns are realizing that many important community issues were over looked.

Successful examples are found in such places as Ann Arbor, Kalamazoo, Marquette and Alma where one-way streets are in the process of being converted back to two-ways. I'd like to tell you about a few of them so you get an idea of why and how the process is taking place.

Results have been positive. Some are recent conversions, others are undergoing the process now. Most conversions have 3-lanes, some do not. In all cases, traffic is handled efficiently, with greater safety, reduced speeding and strong community support.

I want to thank Aeric Ripley, the City of Alma's Assistant City Manager and Director of the Downtown Development Authority, for the following information. Ripley tells me that he did all this research in efforts to convince the leadership of Alma that the one-way streets have to go. Way to go Aeric! It's people like Aeric who have earned my deepest respect because he indeed has the courage needed to effect change!

Greenville—population 8,282
US Census Bureau, 2004 estimates

Greenville changed a two-way street into a one-way. The street now has a center turning lane and new sidewalks, lights and utilities—basically it was a whole new restoration. The goal was to make the downtown more pedestrian orientated and help support retail business by slowing traffic down; adding crosswalks, curb bulb-outs and other traffic calming measures. Connections were also built from the main street to the back parking lots so people would use those lots more often.

Construction began in April 2002 and was open for traffic the following October. The project was done in three phases so that access to each business was maintained and progress meetings were held every 2 weeks to keep everyone in the loop. During the project, only two people voiced major concerns out of 230 property and business owners. Funding was by tax increment financing, bonding and two grants.

Ann Arbor (population 113,567)
US Census Bureau, 2004 estimates

About 30 years ago, Ann Arbor changed many of the streets in the State Street District to one-ways. About 3 years ago the community began to look at improvements.

Through that process, locals discovered many reasons why these streets should be converted back to two-ways. The University discovered that visitors and new students find it hard to get around with the one-way streets—you must know exactly where to go to get where you're going.

Merchants felt that the area was a destination stop, and one-ways move drivers through town on the way to someplace else. Two-ways help promote locations where people feel they can comfortably gather.

Residents said that the streets needed to meet the needs of walkers and bicyclists—one-way streets are for moving cars through an area quickly and efficiently and don't meet those needs. What you want for people is a place for them to walk and feel comfortable.

Everyone decided that two-ways get you into the neighborhoods and it's easier to drive around where needed.

Ann Arbor's traffic engineer was initially against the conversions and used Main Street in the downtown as an example of the congestion that the two-ways would create. When the engineer talked about the slowness of Main Street and why the community shouldn't want two-way streets, the community stood up and voiced their love of Main Street.

The people felt it's the best street in the city and the best place for business because it's a destination, it has life and part of its life is the two-way.

If you do everything right with the traffic flow and the streetscape improvements it'll be a place that everyone wants to be, a true DESTINATION, and that's what makes it the center of the community and different from the big box stores.

Lapeer (population 9,362)
US Census Bureau, 2004 estimates

Lapeer has a downtown that is broken up into a north and south section. There is currently a one-way loop system that circles the downtown.

The north section is being converted to a two-way and the south end is not changing (yet) because there is too much traffic there. The north side just doesn't get the traffic because there is no direct route to M-24, like the south end has. The traffic is forced to go around the loop to get to the downtown and the merchants want direct access to this part of town.

Lapeer is adding angle parking to Main Street and removing pedestrian malls at each end of the downtown because customers can't park close to these stores.

Kalamazoo (population 73,960)
US Census Bureau, 2004 estimates

Kalamazoo is moving toward converting Lovell and South Streets to two-ways. They are seeking two-way streets for the same reasons that other communities are—for better flow of traffic, for a place that is friendlier to walkers and bicyclists, to maximize parking, and yet be built as a safe place. The secret to a good mix between cars and people is creating some congestion with accessibility. Customers will never flock to an empty looking or feeling street.

Bay City (population 35,317)
US Census Bureau, 2004 estimates)

In 1999, Bay City changed the first of its many one-way streets to two-ways. However, it took three years to get the City Engineer to agree to the conversions.

The first day of the conversion was chaos. The City had signs up for a couple of weeks before the change, ran a bundle of news articles and posted notices everywhere—but it still was a confusing mess for people. However, it didn't take long for everyone to make the two-way a normal way of life.

The businesses in the area "loved it". The speeds were reduced and giving directions to out-of-towners was much simpler. Signage also was easier to manage—meaning less was more. No parking spaces

were lost. The shoppers also "loved it"—the two-way made it much easier to move through town to the spot where they wanted to go.

Since then, there has been no complaints to the two-way streets or wanting to go back to one-way. In fact Bay City is in the process of converting other streets to two-ways.

Owosso (population 15,532)
US Census Bureau, 2004 estimates

The one-way system in Owosso was developed in the 1950s when there didn't seem to be any other alternatives to alleviate congestion in the downtown. But in 1988 people felt these reasons no longer held water, and Owosso changed its one-way street system.

It was a struggle from those who argued tradition. The businesses all knew it was difficult for customers to reach their stores while competing businesses on the strip (located on two-way streets) had no such barriers. The controversy disappeared shortly after the conversion to two-way. The downtown businesses noticed immediate benefits and customer feedback was great.

Alma (population 9,308)
US Census Bureau, 2004 estimates

Alma's one-way street system was developed by the Michigan Department of Transportation more than 20 years ago in order to speed traffic to outlying areas. Such measures were common in that era when many communities were not focused on downtown civic and business life.

But in 1997, community leaders felt that something needed to be done to revitalize the downtown, so they hired a consultant to develop an economic strategy that included analyzing traffic and parking patterns. In late 1998 and early 1999, they surveyed business owners to ask how they felt about converting the one-way streets back to two-ways again.

Consultant reports and the survey results were presented to the public in February of 1999. The verdict was a definite yes—change them back! The cost to do the conversions was the biggest hurdle to overcome (see Diagrams 12 and 13).

Contact communities for more information

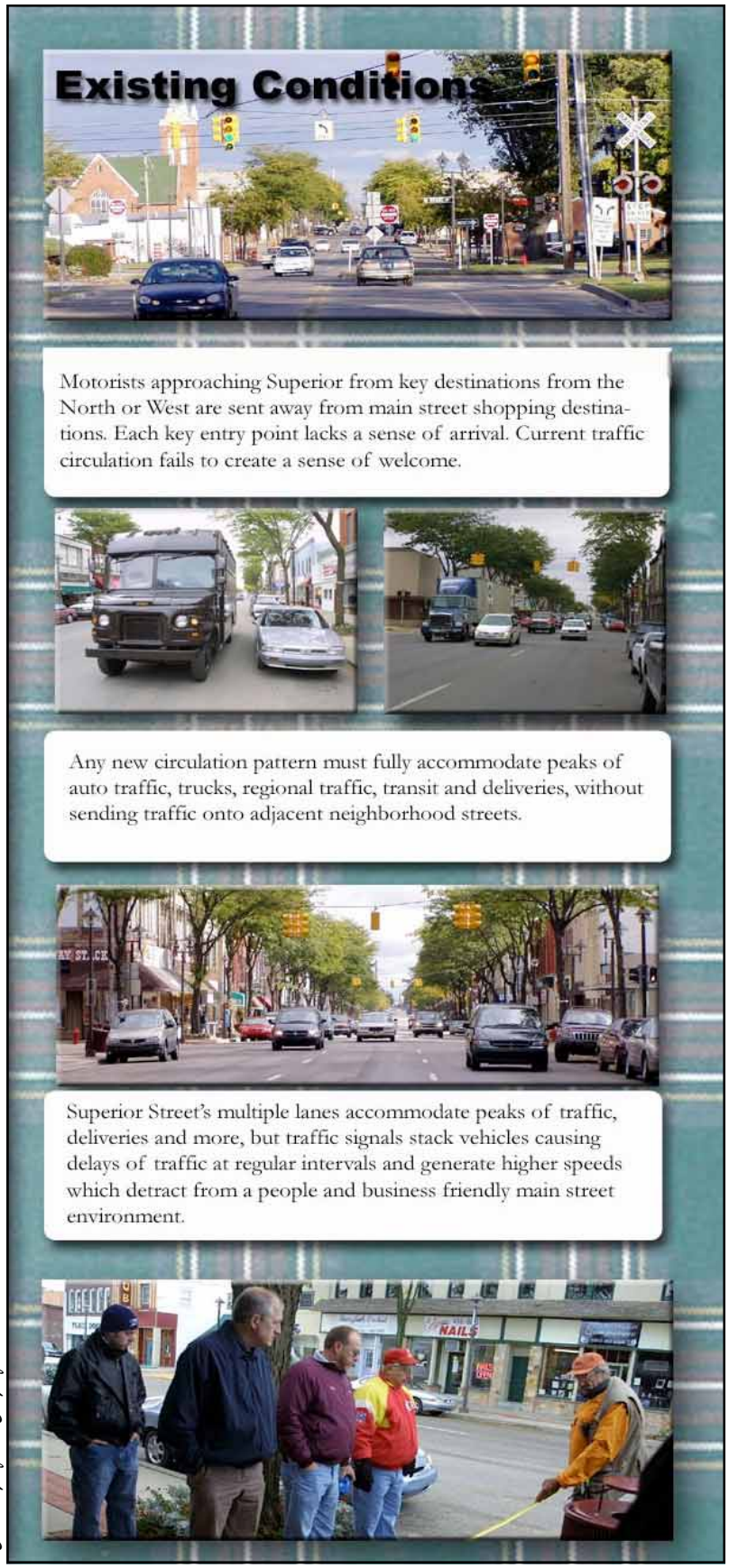
I hope these examples give you a glimpse of what other communities are doing to change their controversial street systems. As you read the comments you probably picked up on a couple of common themes.

The first was that two-ways make it easier to get to downtown. Second, two-ways help make downtown a destination point not just a place to drive through on your way to somewhere else.

If you think you have a good one-way candidate in your community, then call these communities and find out how they found the courage to make changes. The more we share information, the better our communities will function for people.

"Tell me, I forgot.
Show me, I remember.
Involve me, I understand."

— C. N. Moore
Center for Livable Communities



Courtesy of the City of Alma

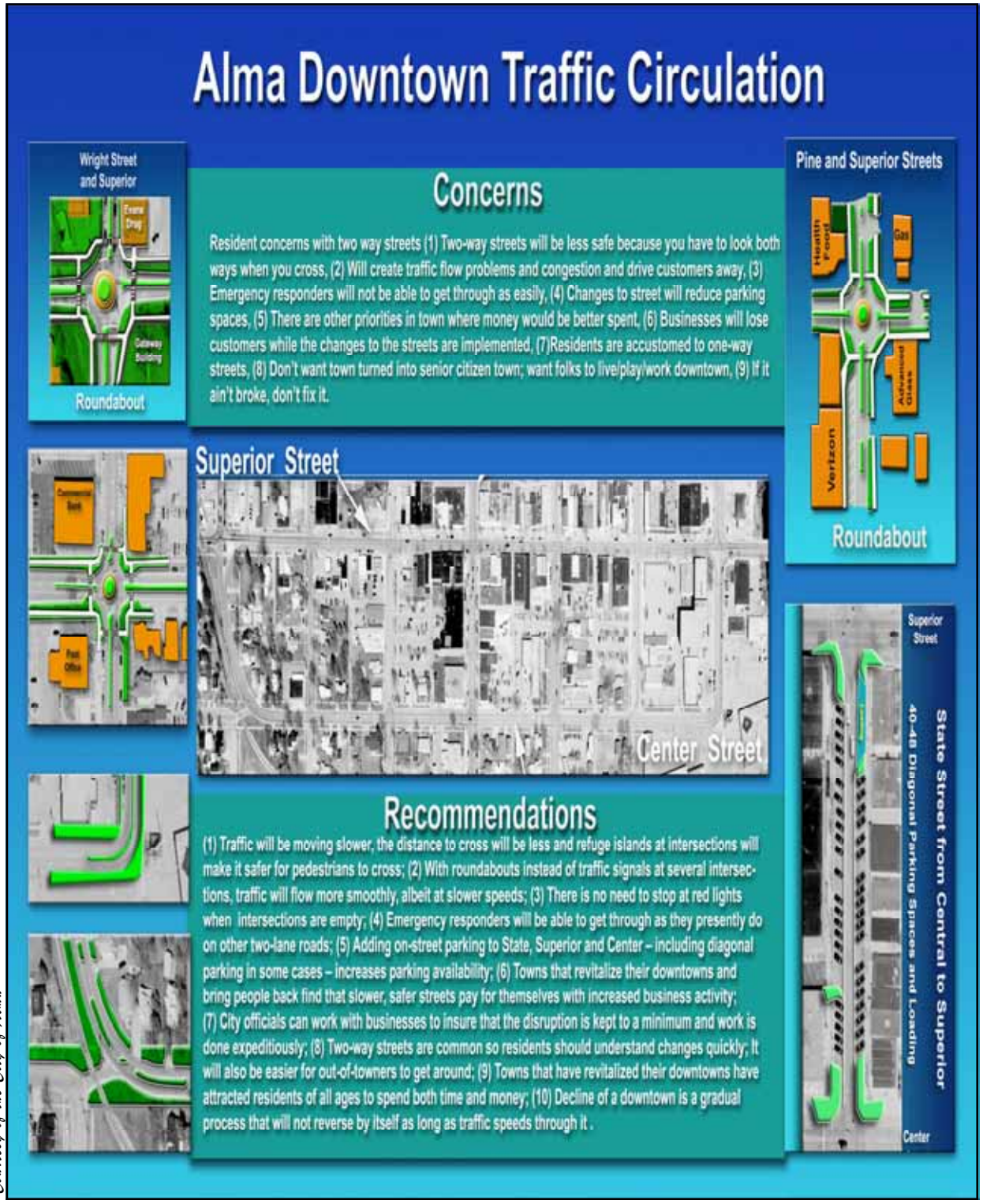
Diagram 12.
City of Alma
Conversion Project

The photos and descriptions to the left were part of a report that traffic consultants presented to the city. Here we see existing conditions regarding traffic circulation within the downtown.

Traffic circulation and management is an effort to reduce the speeds of motorists, to improve traffic flow, to increase safety for pedestrians and motorists, to reduce noise, and to improve the quality of business and civic life.

Healthy streets require appropriate travel speeds and increased driver awareness of other roadway users, such as walkers and bicyclists. Traffic management and circulation creates a level playing field for all modes of travel and improves the quality of streets.

Most importantly, proper traffic circulation requires residents to take ownership of their downtown and to work together to create an enjoyable, prosperous and safe environment that moves all forms of traffic efficiently and at safe speeds.



Courtesy of the City of Alma

Diagram 13

City of Alma
Conversion Project
Downtown Traffic Circulation

Here we see the concerns of traffic circulation within the downtown and the recommendations as presented by the consultants. City residents reacted with overwhelming support and enthusiasm to make changes.

Photo by Leslie Kettren

Photo 206. Adrian

The City of Adrian installed this raised channelized island to force traffic on M-52 to turn right, away from the downtown onto a one-way street. Cars go fast here and the traffic circulation does not create a sense of welcome.

Is it fair for the city to divert shoppers away from downtown businesses in this day of competition with big boxes? Do out-of-towners get lost driving through the City? Are the one-way streets just a way to move traffic through the town so pass-throughs can get on their way to someplace else? How easy is it for visitors to find the downtown shops? Do the one-way streets meet the needs of walkers and bicyclists?

Those are questions that residents might want to ask their leaders. The downtown is a true destination that the entire community should be able to share. You want people to be able to walk and feel comfortable—and the route to and from the downtown must be easy to get to and readily accessible for all.

Strategy 12. Build Green Streets

Streets and roadways can be an essential ingredient to beautify any community. However, for far too many years communities have either allowed street trees to deteriorate and die, or have failed to plant trees on new streets.

In some cases, the streets have been widened so much that there is not enough space for trees to be maintained as healthy, long-lived trees.

Walkers have a great need for green, shade and a beautiful setting. Beautiful landscaping and trees don't just affect walkers. The presence or absence of street trees and other landscaping treatments also affect drivers positively and negatively.

Street Trees

Much is unknown about the positive effects of street trees on safety, pavement life, aesthetics, and increased property values. Although street trees are expensive to maintain, we know that they reduce the harmful fumes of car emissions and add to property values.

According to the U.S. Forest Service, trees also tend to cool the temperatures of a street surface by 4 to 7 degrees, which helps to lengthen the life of asphalt streets by up to 40%.

When I'm out walking in the summer, I would much rather mosey along a street that has a beautiful tree canopy—because it's cooler in the shade—than to trudge along a street that doesn't have any trees. In the autumn, the color of the trees can be breathtaking and once the leaves fall, the smell and crunching sound under your shoes is unforgettable.

What is a Street Tree?

U.S. Forest Service
www.fs.fed.us

Street trees are trees that are planted along streets or highways. Such trees can be located on private property or on publicly held land. Street trees are typically planted in a linear fashion and provide spatial enclosure as well as other technical and aesthetic benefits.

Trees may also be strategically planted—usually in parkway strips, medians, or along streets—to enhance the visual quality of a street.

A Tale of Irresponsibility

Now if you talk to some road designers, they might have a different view regarding trees. I have heard road designers call trees by the name of FHO—*Fixed and Hazardous Objects.*

A couple of years ago, I was told by a State of Michigan transportation official that trees are a liability—pure and simple. And, he went on to tell me about a gone awry lawsuit and the court decision that formed the State's mindset regarding trees.

Apparently, the State lost a lawsuit to a woman who was drunk and drove 300 feet off the edge of the road and hit a tree. After loosing that case, State road designers became *very reluctant* to plant trees near a roadway. And consequently, most of the trees growing within 200 to 300 feet of all State roadways were cut, depending on the characteristics of each location.

No wonder many of our highways seem to look desolate and uninteresting. Hello? Should the public be inflicted with ugly roadsides because one irresponsible driver litigated the road designers into submission? Why don't other states have this same fear?

I've driven through many states where roads are hilly and curvy, narrow and beautifully lined with trees that create majestic tree canopies across the roadway. Yes trees—you know, those FHO's that transportation folks apparently fear so much!

If other states can plant trees close enough to the roadway to create tree canopies, why not Michigan?

Trees vs. No Trees

Compare the two scenes on the right (photos 208 & 209). Both photos are of the same street in Birmingham.

The section *with trees* produces speeds of about 25 to 30 miles per hour. The one

Photo by Dan Burden

Photo 207. Grand Ledge

It's been positively tested by the U.S. Department of Transportation that when street trees are present, the speed of drivers is slowed. Plus, the street looks better and provides shade for walkers in the hot days of summer.

Photo by Bekki Wasmuth

With Trees
Photo 208. Birmingham

This section of Lincoln Street has many street trees—and speeds are about 25 to 30 miles per hour.

Photo by Bekki Wasmuth

Without Trees
Photo 209. Birmingham

This section of Lincoln Street—part of the same street as above—has no street trees. Speeds are 30-45 miles per hour.

without trees produces speeds of 30 to 45 miles per hour—5 to 15 miles per hour faster. When trees are present, greater safety is achieved with lower speeds and added reaction time.

In Japan, the pattern of planting trees has become a science. The Japanese have learned to plant trees closer together near the entrances to towns. The closer the trees are planted, the greater the impact. As a driver gets closer to town, the pattern of closely planted trees give drivers the illusion that they are speeding up. The response then is to lighten up on the gas pedal and slow down.

Landscaping Treatments

Extensive use of landscaping along our roadways is loved and adored by people. I believe that looking at landscaping along a street is a *whole* lot more interesting than staring at the double yellow line down the middle of the road!

Such scenery—including lawns, trees, plants, and other organic or inorganic materials like rocks and decorative fencing—soften the affects of development. It's already been proven by research that green streets slow traffic down [13].

If you're caught in traffic congestion (heaven forbid, however it is all too common these days!), where would you rather be stopped—on a green street or on a bland and boring street?

No Wild Flowers Wanted

About two years ago I had a puzzling conversation with another member of the Michigan Department of Transportation. I was giving him all kinds of kudos for planting an area along the expressway with wild flowers (where I-96 and US-23 intersect at Brighton).

The field of blooming color was absolutely breathtaking, and I really wanted him to know how much I appreciated the department's attempts to beautify our highways. Finally I thought to myself, the transportation leadership was beginning to listen to the people.

While I was going on and on, he suddenly interrupted me and said in a deadpan voice, "We're not doing it again." Looking at him incredulously, I asked him why not. "Because", he said, "we are having too many accidents there because of gawkers."

He seemed stunned and at a loss of words when I retorted, "Did it ever occur to you that if there was beauty everywhere along our highways, people would not be so astounded to see a field of flowers. Did it occur to you that people would not become what you have described as gawkers, if this field of beauty was not so unusual along our roadways? When something becomes common—the feeling of surprise goes away. I would plant more wild flowers, not less. And, I would plant them all over the State."

I couldn't help myself— he needed to know how brainless I thought his line of reasoning was. And no, sadly, I have not seen a repeat of the summer when I-96 at US-23 came alive with the glorious color of wild flowers.

Photo 210. Ferndale

Landscaping is now considered a primary component of ways to slow down and calm traffic.

Greening Seattle

SEA Streets Project, City of Seattle, Washington
www.seattle.gov/util/About_SPU/Draingage_&_Sewer_System/Natural_Drainage_Systems/Street_Edge_Alternatives/index.asp

Seattle's pilot Street Edge Alternatives Project (SEA Streets) is designed to provide drainage that more closely mimics the natural landscape. During this project, the landscape architect was involved more during the design phase than a typical road project. The most apparent example of this is a sidewalk design that not only serves but attracts pedestrians.

To accomplish constructing a SEA Street, road designers reduce impervious surfaces 11% less than a traditional street, provide detention in swales, and add over 100 evergreen trees and 1100 shrubs per block!

Photo 211. Seattle

I recently visited Seattle and took these photos. In talking with residents in this neighborhood I found out they enjoy walking and living along SEA Streets because they have a natural, soft edge. Contrast this to the hard edges of traditional streets with curb and gutter. Also, more tree cover helps reduce summer heat while absorbing air pollutants and rainfall. When the trees and shrubs reach maturity, this street will look like you are driving or walking along a forested lane.

Photo 212. Seattle

Here we see a SEA Street under construction. It's important to build a good base before planting trees and other landscaping so that their will be proper drainage. You will find no gutters located along these streets—because road designers in Seattle say there is no need. It's hard to believe that these SEA Streets are right in the City of Seattle!

Nooks and Crannies

Not only do I see the need for street trees and other landscaping treatments along and in our roadways, I also see the need for areas between buildings to look green and inviting. Sometimes it is the little things—like overlooked nooks and crannies—that make the difference. My advice to every community that wants to look and be successful—build green everywhere!

Compare the three photos on this page. Photo 213 shows the area between the buildings as being a "Plain Jane"—in other words an uninteresting scene. The other two photos show what any overlooked nook and cranny can grow up to be when properly showcased!

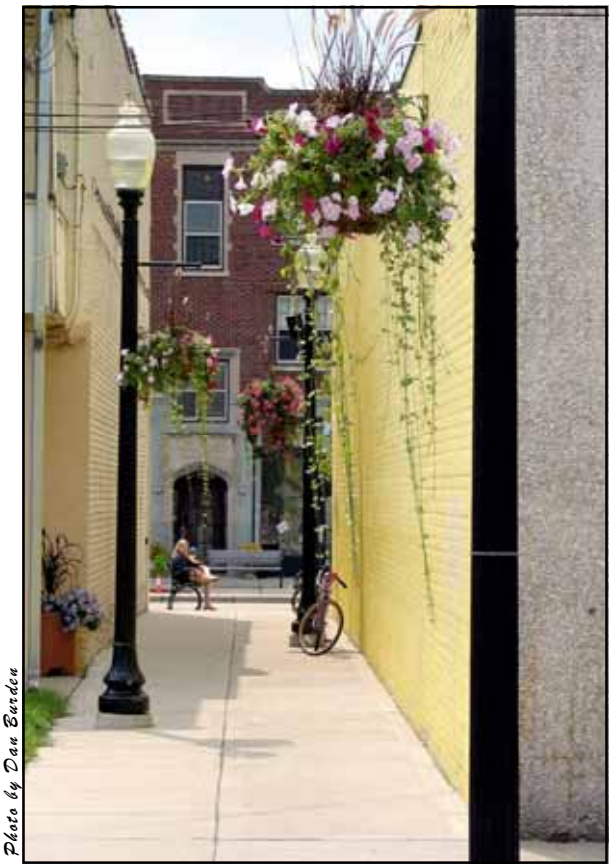


Photo 213. Ferndale

As seen from the street, this is a clean, well-maintained walkway between two buildings.

Photo 214. Greenville

This is what landscaping can do to improve a plain and uninteresting walkway. People like beautiful settings. Compare this photo to the one below. Where would you rather walk? Which view would you rather see from the street as you drive by?

Photo 215. Brighton

As seen from the street, this alley is plain and fairly well maintained. When compared to the other photos of alleys, where would you prefer to walk?

Strategy 13. Provide ADA Access

ADA is short for the Americans with Disabilities Act. We should all know by now that meeting the requirements of ADA is an U.S. Civil Rights Act— meaning it is a civic responsibility, not to mention the law.

It is also the best way to meet the needs of people of all abilities. The world's best road designers are often stymied by the variety of challenges posed by building or adapting streets to meet the needs of people with many types of disabilities.

Although engineers and building officials are schooled in the rules of construction for people with disabilities, the public is generally unaware of the requirements. The Federal Highway Administration supports facilitator training sessions for a program called the Pedestrian Safety Road Show [14]. The program is community-based and focuses on safety and accommodations for pedestrians.

The Pedestrian Road Show encourages the formation of a local group of pedestrian advocates, local agency officials, and political decision-makers to identify and solve specific local problems that affect pedestrian safety and walkability.

The Road Show also explains what tools are available to local communities. A unique aspect of the Road Show is that it has been developed to allow the state field offices of transportation departments to take a leadership role in delivering "pedestrian" technology to local communities by becoming a Road Show facilitator and presenting Pedestrian Road Shows in local communities.

A simple street crossing should be built in a way that directs people to a crossing point. Crossing a street should be easy and convenient without any barriers along the way. In some communities there are far too few crossings, such as in East Bay Township near Traverse City, where crosswalks sometimes are one-mile apart. Walkers take the risk of crossing US-31, a five-lane highway, versus walking to the nearest crosswalk.

Photo by Russ Sayring

Photo 216. East Bay Township

Crosswalks along US-31, a five-lane highway, near Traverse City are few and far between—sometimes as much as one-mile apart. Even though the people shown here used the median as a safety respite, they still felt they had to run for safety crossing just two lanes because the street is designed for SPEED! All walkers, disabled or not, cross here at great risk to their life.

Photo by Dan Burden

Photo 217. Flint

Sidewalks should slope no more than 2%, especially at crosswalks and driveways. These crossings can be an extreme challenge to all people with special abilities.

Accommodating Persons Who Are Disabled

Federal Highway Administration
www.ota.fha.dot.gov/walk

The Americans with Disabilities Act (ADA) requires that new and altered transportation facilities accommodate persons with disabilities. Title II of ADA covers new sidewalks and streets provided by or on behalf of a state or local government. Curb ramps are specifically required in the Department of Justice Title II regulation at 35.151 New Construction and alternations. The following walkway elements are required:

Curb Ramps

1. A curb ramp or other sloped area is required wherever a new or altered pedestrian walkway crosses a curb or other barrier to a street, road, or highway.
2. The running slope of a new curb ramp may not exceed 1 in 12.
3. A landing is required at the top of a curb ramp that must connect to a travel route that is at least 36 inches wide.
4. The transition from curb ramp to gutter must be flush.
5. Where crosswalks are marked, the foot of the curb ramp must be contained within the crosswalk.

Sidewalks

1. A sidewalk must have a minimum continuous travel width of 36 inches to accommodate pedestrians using wheelchairs.
2. The cross slope of a sidewalk must not exceed 2%.

Street Crossings

1. The Consider the information needs of pedestrians who are blind or have limited-vision when designing intersections.
2. Many pedestrians cannot complete a street crossing in the allotted time.

Temporary Work

1. Temporary work (construction) must keep the ways open for pedestrians.
2. Other Pedestrian Facilities
3. Pedestrian facilities (signal actuators, telephones, drinking facilities, kiosks, etc.) on and along sidewalks must be accessible.

Photo by Leslie Kettren

Photo 218. Milford

Sidewalks must be a minimum of 36" wide and not exceed a cross slope of 2%. People who must walk with a cane can easily trip and fall if sidewalks are cracked or lifted by tree roots. Snow removal is very important. The walk should be shoveled within 24 hours after a snow fall.

Photo by Dan Burden

Photo 219. Flint

Crosswalk buttons should be placed low enough so that people in wheelchairs can reach them.

Photo by Dan Burden

Photo 220. Eastpointe

This is a very dangerous sidewalk for someone with special abilities. A planting strip between moving cars and the sidewalk can aid those with disabilities to detect driveways where cars may go in and out of parking lots.

Photo by Dan Burden

Photo 222. Grand Rapids

This able bodied couple is having a hard time squeezing onto the crosswalk—it would be impossible for someone with a disability to cross here! Where crosswalks are marked, there must be a curb ramp.

Photos by Dan Burden

Photo 221. Ferndale

This street is 72' across, including the turning lane. Many walkers can't complete a street crossing in one light change—especially seniors, people with disabilities and parent's with young children.

Photo by Dan Burden

Photo 223. Marquette

Keeping sidewalks in good repair is one of the simplest things to do to help persons with a walking disability. Edges should be definite. A person who is blind or walks with a cane could easily fall into the street if they walked to close to the edge of this sidewalk.

Photo by Dan Burden

Photo 224. Brighton

(left) The travel widths of walkways must be a minimum of 36" to accommodate wheelchairs. This is 6' wide—a more efficient width.

Strategy 14. Build Public Space

All people need places to socialize. People seek and need places near where they live and work. The most visited places are those that offer pleasant settings for personal and informal interaction—for those who just want to hang out.

Public space is where we celebrate life. Public space is where we share anniversaries and birthdays, and assemble for neighborhood or community festivals. The public space is the glue that holds neighborhoods and society together. Public space is where we see and experience people different than ourselves. Public spaces are places where tolerance and acceptance is learned. They are places where we can see and experience the need for physical as well as social change.

The challenge and importance of building and maintaining good public space is critical to the success of a community, and to civic life and ownership of responsibility. Most important, public space needs to be where we live.

Our children and all of us need to access public space many times a week, without getting into a car. It is in the neighborhood park or plaza where we form many of our most important associations, networks and make new friends.

Road designers should be highly in tune to the workings of public space, since they manage most of these spaces. In fact, most urban public streets should be built and maintained as a complex public space.

Photo 225. Brighton

Play areas for children should be a priority.

Photo 226. Milford

The sidewalk in Downtown Milford turns into a Farmers Market every Thursday throughout the summer months.

Photo 227. East Lansing

Plazas are public spaces used for festivals or other large gatherings. This plaza comes alive with activity during arts and craft shows and music festivals.

Photo 228. Howell

Public spaces should be for fun and enjoyment by all ages—no matter how young or old you feel. The City of Howell hosts an annual Balloon Festival.

Pocket Parks

At one time, Melbourne, Australia was the highest rated livable city in the world. Melbourne requires that all homes be built within 1/8 mile of a public park. Often these are small areas called pocket parks or neighborhood parks. Pocket parks are used as small areas where children play, where you can sit to rest or read, or where you can meet old neighbors or new friends.

The importance of creating these small public spaces cannot be downplayed. These areas can create a feeling that is very soothing and restful. These areas are generally quieter with little noise from traffic. However, it is critical that people can reach these small park areas with ease and convenience.

Pocket parks that are used the most often, and are best watched over, are located no more than 3 minutes walking distance from an office, home or shopping area.

Photo by Dan Burden

Photo 229. Flint

This neighborhood pocket park is enjoyed by the residents living nearby. Wild flowers need little weeding, yet provide a warm and inviting greeting for anybody and everybody.

Photo by Dan Burden

Photo 230. Greenville

This photo shows a walkway area between two buildings. This small pocket park could be utilized as an area to read a book or the morning paper, as a quiet place to discuss your employer's short comings or just to watch people pass by. Co-workers can sit out-of-doors to eat their lunch and unwind—or it's a great place to build a snowman in the winter!

Photo by Dan Burden

Photo 231. Brighton

These small sitting areas add to the success of civic life and to the sense of ownership and responsibility of the public realm.

Photo by Leslie Kettren

Photo 232. Milford

(right) This pocket park was built by volunteers when the street was closed to traffic. It leads from a parking lot to the shops on Main Street. Most of us are willing to park far away and walk great distances if our destination is interesting. Parking close is important only when the destination is dull or unimportant. Ironically, the more parking provided near an attractive destination, the less interesting the place becomes [15].

Chapter 6 Endnotes

[1] Scale refers to dimensions, such as measurements of height, length, width, breadth, depth, overall size area, and so on.

[2] This paragraph was paraphrased from Road to Ruin by Dom Nozzi, page 109.

[3] A trip is a one-way journey that proceeds from an origin (beginning) to a destination (end) using a single mode of transportation. Each trip has one origin—often from home, but not always—and one destination. A daily trip is traveling from one origin to one destination by a vehicle during a 24-hour period. A *Planners Dictionary*, American Planning Association Planning Advisory Service Report 5xx/5xx, April 2004, page 428.

More information regarding can be found on the website of the Transportation Research Board (TRB) at www.TRB.org. TRB is a division of the National Research Council, which serves as an independent adviser to the federal government and others on scientific and technical questions of national importance. The National Research Council is jointly administered by the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine. The mission of TRB—one of six major divisions of the National Research Council—is to promote innovation and progress in transportation through research.

[4] "Several researchers have found that the distance Americans will walk for typical daily trips is quite limited, varying from 400 feet to about 1.4 mile. Richard K. Untermann, (Accommodating the Pedestrian: Adapting Towns and Neighborhoods for Walking and Bicycling, Washington, D.C.: United States Department of Transportation, 1990) found that 70 percent of Americans will walk 500 feet for daily errands and that 40 percent will walk 1/5 mile; only 10 percent will walk 1/2 mile. Similarly Gerald Barber, (Aggregate Characteristics of Urban Travel in The Geography of Urban Transportation by Susan Hanson, 1986) found that the distance people walked for typical trips varied between 400 and 1,200 feet." This information was taken from Streets and the Shaping of Towns and Cities, page 107.

[5] The hypothetical story about Brian, Jeff and Jamie was adapted from the book "Road to Ruin" by Dom Nozzi, pages 31-34. This book is an excellent read. There aren't many photographs, but the benefits of plowing through the text are well worth the effort. If I had my way, I would have anyone who reads this book, to also read Nozzi's book. It is an excellent companion book that supports my rantings and provides more technical detail for those readers who want to learn more in-depth information about walkability issues.

[6] Traffic calming is a concept fundamentally concerned with reducing the adverse impact of motor vehicles on built up areas. It usually involves reducing vehicle speeds, providing more space for pedestrians and bicyclists, decreasing motor vehicle volumes and improving the local environment. It necessitates the installation of speed humps, traffic circles, or similar devices intended to discourage speeding or to discourage through traffic. A *Planners Dictionary*, American Planning Association Planning Advisory Service Report 5xx/5xx, April 2004, page 420.

[7] Some of the information in this section was taken from the book "Road to Ruin" by Dom Nozzi, page 73.

[8] The shoulder is the space between the travel lane and the edge of the road. Shoulders that are wide leave more room for safer walking and bicycle riding. Hard surfaced (concrete or asphalt) shoulders are preferred over gravel for ease of travel by bicyclists.

[9] Parts of the previous paragraphs in this section were taken from the book Suburban Nation The Rise of Sprawl and the Decline of the American Dream, page 61.

[10] Walter Kulash is a principal and senior traffic engineer with the firm of Glatting Jackson Kercher Anglin Lopez Rinehart, Inc. Kulash has worked on traffic and transit planning projects throughout the U.S. and Canada. Since the early 1990s, he has specialized in the rapidly emerging field of "livable traffic" design. This view of traffic engineering recognizes that the narrow traffic planning goals of the past few decades—moving the most traffic at the greatest possible speed—are giving way to a far more inclusive view. In the new view of traffic engineering, traffic performance is balanced against other desired qualities of the street, such as its value as an "address", its retail friendliness, and its role as a premiere public space of the community. The information in this section of the book was taken from the results of a study completed by Kulash. For more information, visit www.glatting.com.

[11] *In terms of safety, studies in Germany, Denmark, Japan and Israel show that there are over 20 percent fewer accidents in shared streets and over 50 percent fewer severe accidents compared with standard residential streets. The groups that benefit the most are pedestrians, children and bicyclists* [Warner Brilon and Harold Blanke, Traffic Safety Effects from Traffic Calming, 1990)....*The suggestion often encountered, that safety improvements in one area increase the accidents in neighboring areas, was not proven. Interestingly, the safety results in Europe and in Asia appear to be similar* [Ulla Engel, Effects of Speed Reducing Measures in Danish Residential Areas, 1990]." Streets and the Shaping of Towns and Cities, pages 118—119.

[12] The maximum speed information is from Adapting Residential Roads for Safety and Amenity, Liz Beth and Tim Pharoah, London, England: South Bank Polytechnic, Department of Town Planning, 1998. This and Diagrams 7 and 8 are from Streets and the Shaping of Towns and Cities, pages 111-117.

[13] Sources include the Federal Highway Administration at www.fhwa.dot.gov and the Victoria Transport Policy Institute at www.vtpi.org.

[14] The Pedestrian Road Show is a great program. For more information, check out the Federal Highway Administration homepage on the website at www.ota.fhwa.dot.gov/walk. Also look for other information such as Partnership for a Walkable America, Tips for Low-Cost Improvements and Warrants and Guidelines for Pedestrian Facilities.

[15] Information came from Road to Ruin by Dom Nozzi, page 127.

Chapter 7

Conclusion

DO you think that in 50 years we will be proud of the places where we live? Do you think we can keep our sense of community and quality of life? Do you think the ideas in this book are enough to overcome communities that are being destroyed by wide roads and other sprawl tactics? In almost every case where we make it easier to drive our cars, we make it harder to travel by some other means of transportation. In doing so, we make our quality of life worse.

There are hundreds of reasons why people no longer take walks in their neighborhoods or in shopping areas. Try taking a walk anywhere in your community. How many places that you would like to visit can be reached by foot? How many can be reached easily and safely by bicycle? How many streets are only designed for cars, and not for people?

Fast car speeds breed uncivil behavior, disrespect, annoyance, impatience, and anger among drivers toward walkers, bicyclists, public transit users, and each other. Traffic calming tactics, to be effective at reducing speeds and making our communities more livable, need to be applied community-wide. When we as drivers know that slower speeds are the norm, we can begin to appreciate our cities and neighborhoods as enjoyable places to drive *to*, not *through* [1].

Not every strategy that I have suggested in this book works in every situation, although virtually all of them can succeed to at least some degree. However, I believe that most communities don't struggle with design issues, but with issues of implementing change.

I'm not sure we fully understand why people fear change, but they do. I think that we probably need more research to investigate the best way to overcome these fears. Most road designers and planners are eager to see change, but are hesitant to begin the process. Often there are conflicting local ideas. Some people may want bike lanes or medians.

Others say that such changes would get in the way. Some say it costs too much to maintain. Others cite safety concerns.

People are finding their values and principles in conflict with their actions. Frequently decision-makers make compromises on design that eats away at the livability, function and viability of streets and communities.

There are many different sides to the choices they make. However, each choice needs to be customized to fit the situation. The decisions should not be a "one-size-fits-all" scenario. Every road should not look the same or function the same because they were built with the same rules and regulations, regardless of the location or purpose.

It's extremely important to pay close attention to the surroundings and conditions that the street will be going through. People in the trade call this "context sensitive design" (see sidebar).

In some cases, it will be a necessary process to set up walking and bicycle committees. There must be a willingness to think "outside-the-box" and a willingness to build something new and exciting—yet safe for the public. Outstanding examples can be found everywhere around the world. We must be willing to investigate all possible solutions, unusual or otherwise, and implement them if the "shoe fits".

Certainly we will not begin to see less use of our cars overnight, even if we take all of the steps I have outlined in this book. And I don't think that is an unreasonable assumption. After all, it took us several decades to build a car-friendly place, so it will take more than overnight for us to return to a friendlier pattern of travel.

There will only be a few successful communities until road designers and decision-makers commit to creating public places for people.

Context Sensitive Design

Federal Highway Administration
www.fhwa.dot.gov

Context design is a new way of looking how streets and highways are designed and built. An important concept in road design is that every project is unique. The setting and character of the area, the values of the community, the needs of the street users, and the challenges and opportunities are unique factors that designers must consider with each road project.

Whether the design to be developed is for a modest safety improvement or 10 miles of new location rural freeway, there are no patented solutions.

For each potential project, designers are faced with the task of balancing the need for the highway improvement with the need to safely integrate the design into the surrounding natural and human environments.

In order to do this, designers need flexibility. The ultimate decision on the use of existing flexibility rests with the State and/or local design team and project managers, depending on where the road project is located.

Each situation must be evaluated to determine the possibilities that are appropriate for that particular project. Managers are encouraged to allow the designers to work with staff members from other disciplines to aid in exploring options, constraints and flexibilities.

There will always be many streets where the car will remain "king-of-the-road". It can't be avoided. Travel by car is necessary in today's world. But once we lose sight of the broader mission of a street—we lose direction.

People need successful, safe and inviting places, where visiting with friends and neighbors is a joy and not just another stressful trip on a busy roadway with

many, many lanes.

To improve conditions for drivers, bicyclists and walkers, there is a need for experts to examine current conditions. Research at the local, state and national levels should be improved. But, experts must first look at things from a local perspective—not from the perspective that *any* street guideline or *any* regulation can be built in *any* location in any town. One size does not fit all!

Every community has unique qualities. Each street has special local circumstances. Context-sensitive designs are truly important if our streets are going to perform as great outdoor spaces.

Even the most walk- or bicycle-friendly drivers won't be courteous if a roadway is designed and built to be overly fast. A way to measure the level of health of a community or neighborhood is to observe the number of walkers and bicyclists that are present on the streets. The degree of the health of a community is evident by the numbers of people seen and the way people use physical space. People adapt to the built and maintained environment. If a public space is inviting and well designed—they will come. If public space is poorly designed—people will avoid it and there will be eventual decay.

A simple way to find out if drivers think your community is walkable is to do a "Walkout Survey". Every time I do one of these surveys, my family gives me grief because they think I am going just a tad off my rocker! I think I am prudent in how I conduct a walkout survey, so let me describe it. It's simple. When crossing a street, take a step out into the roadway when you see cars coming. If they keep coming at you and don't slow down, then you can be pretty sure that drivers think that walkers don't matter—and that cars come first, not people. BUT, if cars slow down and actually yield or stop when you are crossing the street—that is an indication that walking is seen by drivers

Photo 233. Milford

Drivers in walkable communities show high levels of courtesy. Walkers have come to expect it. As you can see in this photo, drivers respect the "Stop for Pedestrians" sign and stop for people crossing at this mid-block crosswalk.

as a right. And that's a good thing! After all, walkers should and do have a right to cross a street without the fear of ending up in emergency care somewhere.

Looks Beautiful But...

Walkable communities have well designed streets—but good design is not all that is needed.

First, let's take a look at the photo on the top of the next page. This is a shopping area in downtown Grand Rapids. The streetscape has been carefully designed for walking. The sidewalks are wide enough for many shoppers. In fact, the area is beautiful. Yet, where are the people? There is no evidence of a hustling, bustling, vibrant shopping experience. It looks lonely here! Compare that photo to the scene just below it.

To make communities truly walkable, there must be buy-in and cooperation from everyone—the road designers, the decision-makers, community groups and businesses.

In the top photo, we see where a business *was not* brought into the whole idea of walkability. A long wall such as this one provides no interest for walkers—and generally people will avoid sections of the sidewalk like we see here. If you are serious about making your community more walkable, then this is a good illustration to show that all groups must be involved in making it happen.

Failed Places vs. Destination Places

Again let's do some comparisons. Take a look at photo 236 on page 119. This street has too much concrete and signage. There are few trees. The buildings are far apart and don't seem to relate to each other. This is not an appealing place for people to walk.

Clearly you have a different reaction when you see 237. There is just a different feeling in the street atmosphere. I hope it has become clear to you by now that people will walk and shop where they feel comfortable and safe—and where other people like to walk.

Effective Programs

Clearly there are highly effective education and enforcement efforts bringing change. Programs, such as the "Get Out Spoke'n" program and "Walk to School Day" have been introduced recently to Michigan.

The Michigan Fitness Council [2] is involving several school districts to get kids and parents—a.k.a. change agents—involved in assessing how safely and conveniently they can walk and bike through their neighborhoods.

What's more, these change agents present their findings and recommendations to the elected leaders of the community.

The Right Questions to Ask Road Designers

I've compiled five questions adapted from Dom Nozzi's book, Road to Ruin (page 82),

Photo by Dan Burden

Photo 234. Grand Rapids

This is a beautiful setting, but where are the people? A long wall with no window displays such as this provides little interest for walkers or shoppers. The results are pocket areas called "dead zones" where there is no walking activity.

Photo by Bekki Wasmuth

Photo 235. Howell

Well-designed places are inviting for people to walk, shop and linger.

that we should be asking people who design and build our roads—then I've given the answers. These Questions and Answers are in this chapter because we all need to think a little more before we act.

Question: What is the *intent* of the road modifications?
Answer: Do not simply look at road improvements to move a larger number of cars through your community at higher speeds. Be careful not to degrade the

Photo by Dan Burden

Photo 236. Ferndale

If the entire community looks like this, then it has failed as an inviting place to explore. This street has too much concrete and signage, with too few trees or other landscape features. It looks cold and barren—and lonely. I would not want to walk here, would you?

Photo by Bekki Wasmuth

Photo 237. Howell

Well-designed places are destinations where people feel safe, where they enjoy beauty and where they meet others.

viability of your community, your homes or your business establishments.

Question: Will the new road be safer for pedestrians and bicyclists, or will it just improve safety of drivers at higher speeds?
Answer: Usually, the unspoken intent is to create safer high-speed travel for cars, which gives the road designer the moral high ground. Who could be against safety? Your answer should be that road designers should consider the safety for *all* modes of transportation—including people who walk and ride bicycles.

Get Out Spoke'n Program

Earth Force
www.earthforce.org

The "Get Out Spoke'n Program" was a two-year national campaign by young people, educators and adult leaders to reduce air pollution and traffic congestion by making their communities safe and easier for bicycle transportation. The campaign ended in 2000, however the resources are still on the Earth Force website.

A 32-page toolkit and facilitator guide will help you determine how bike-friendly your community is and help you identify areas of improvement. I am personally sorry that this program is no longer promoted, because it was a wonderful way for children to teach decision-makers about the benefits of bicycling.

Walk to School Day Program

Michigan Fitness Council
www.michiganfitness.org

Scheduled annually, the "Walk to School Day Program" is a national program that is attracting hundreds of school children by starting their day with an early morning walk to school. In Michigan, the program is sponsored by the Governor's Council on Physical Fitness, Health and Sports and the Department of Community Health.

During this event, the adults involved will complete a survey to help identify trouble spots (scary dogs, poor visibility, lack of sidewalks, unsafe crossings) that prevent kids from walking to schools on a regular basis.

The goals for this program are to: Encourage physical fitness, raise awareness of traffic and walking safety, evaluate how walkable a community is and where improvements can be made, create environmental awareness of air quality around schools, and provide a quality experience for families.

Training that Solves Neighborhood Traffic Problems

Training programs, such as this and those listed below, are offered by the Department of Engineering Professional Development at the University of Wisconsin Madison and the Marquette University Transportation Research Center. For more information, contact the Program Director at 1-800-462-0876 or visit their website at http://epdweb.engr.wisc.edu and click on the short courses link.

Neighborhood traffic problems are often difficult to solve. The people who live along and those who drive residential streets often have conflicting goals and needs. A range of techniques to address neighborhood traffic concerns are available from the conceptual planning stage of a new subdivision to the retrofit use of traffic calming devices. Selection and implementation of these measures at any stage in the life of a neighborhood are often complicated.

At a minimum, neighborhood training courses should address and discuss the following:

1. Neo-traditional neighborhood and smart growth design concepts, guidelines that implement these concepts and case studies that demonstrate their application.
2. Real-world applications of traffic engineering concepts using residential traffic control and a toolbox of traffic calming techniques, presentations by cities with successful residential traffic programs and a field trip to see sites with traffic calming devices.

Other training courses related to solving neighborhood traffic problems include:

- *Traffic impacts of land development*
- *Parking lot and site access design*
- *Design and implementation of roundabouts*
- *Bicycle and pedestrian facilities*
- *Traffic engineering fundamentals.*

Question: What design speed is being used for the road?
Answer: For livability and people-first design, the design speed for in-town streets should be as low as possible.

Question: For what kind of vehicles is the road being designed? If it is to accommodate large buses, trucks, or emergency vehicles, how often will such vehicles be using the road?
Answer: Designing for the typically *rare* large vehicle is worst-case scenario planning that generally results in higher average speeds which, from a life-safety point of view, will cause more injury and death than a monster fire truck shaving a few seconds off an emergency call—car crashes are much more common than fires.

Question: What harm is being corrected?
Answer: A community may want to rethink a plan to spend large amounts of public dollars simply to save a few motorists a few seconds—especially if the change will worsen livability along the street. Perhaps your community is more interested in a pleasant street than in addressing, say, congestion from a once-a-year sporting event "problem."

You will need some knowledge about road design before you ask these questions. I hope I've been of some help in educating you to the philosophy and strategies of what makes a community walkable. But before change can happen, you will also need *courage* to ask these questions.

Change Takes Courage

At the heart of building and measuring livable communities is the presence of people walking, bicycling, sitting, and exchanging. Every community already has people who seek significant improvements for walking and bicycling. We need these visionaries—people who

Three Elements That Make a Community Leader

Road to Ruin, Dom Nozzi, page 141

There are three elements that create a community leader.

First is the **courage** to be steadfast in pursuit of an improved quality of community life, that is, to not cave in to multiple pressures toward compromise when a proposal is clearly in the public interest—from financial vested interests to misguided, misleading, smoke-screen concern about "poor people" and short-sighted calls for "penny-wide, pound-foolish" changes.

Second is the **wisdom** to recognize quality and timeless design in the public realm and not be swayed by spurious design arguments.

Third is the **decisiveness** to grasp the moment, to move quickly on a project while the vision is sharp in the minds of the decision-makers (thus avoiding Death by Lowest Common Denominator, the nondecision that offends no one because it accomplishes nothing).

A leader understands that putting off decisions or referring decisions to boards, task forces, or committees (which substantially increases the number of decision-makers), almost invariably dumbs down or kills a proposal.

are able to imagine what it could be.

Although most communities lack organized efforts, the people who will take action are already present. True visionary leaders insist on quality, even if it stirs up a hornet's nest of controversy and debate. We just need to find them and encourage them to become activists for change.

Debate based on sound information is good—that is how change happens.

As long as smoking was an aesthetic issue, nothing changed. But when it became a public health issue, the public reacted.

Robert D. Yaro [3], President of the New York Regional Plan Association, says that: *"The correlations are strong; the science will follow shortly. Once the recognition sinks in—that our patterns of mobility and development are killing us and imperiling our kids—we're quite capable of forging a new public ethic about these issues."*

Too many roads are built without the help of artists—such as architects, sculptors or landscape architects. Why?

Well, one reason is that we build cheap. When we build cheap, we lower our expectations for beautiful urban places. Perhaps it is too costly to improve every part of a community all at once, but why not start with a corner or two? Decision-makers and road designers need to think of people first—not as an after thought!

We also build extremely expensive roads. One cloverleaf intersection may cost a million bucks. If road designers would downsize the width of our streets, we would have more dollars to spend on sidewalks, landscaping, art work and quality pavement.

I hope I have inspired you to be courageous and to lead your community in making special places better for all. What has been lacking in far too many places is Courage. Overcoming the fear of change takes the greatest measure of courage. Armed with information you can overcome fear to make change in your community!

— The End

Chapter 7 Endnotes

[1] This information was taken from the book Road to Ruin by Dom Nozzi, page 87.

[2] The Michigan Governor's Council on Physical Fitness, Health and Sports / Michigan Fitness Foundation is working to *Get Michigan Moving* by promoting the health benefits of physical activity and creating behavior changing programs that equip Michigan citizens to lead physically active lifestyles. They are working to prevent chronic disease and reverse the trend toward sedentary living. For more information, visit their website at www.michiganfitness.org.

[3] Robert D. Yaro is the president of the Regional Plan Association (RPA). Headquartered in Manhattan, RPA is America's oldest and most distinguished independent metropolitan research and advocacy group. Mr. Yaro is chair of The Civic Alliance to Rebuild Downtown New York, a broad-based coalition of civic groups formed to guide redevelopment in Lower Manhattan in the aftermath of the September 11 attacks on the World Trade Center. For more information about RPA, visit their website at www.rpa.org.

Acknowledgments

THERE were many challenges I faced writing this book. The first was that I am essentially a technical writer—after all, my professional training continually emphasized writing in the third person and using fancy words! So it turns out in the end that my writing style was my greatest obstacle. I did my best to figure out how to say phrases that didn't end up sounding dry and uninteresting. You'll have to be the judge of whether I succeeded in that regard.

I think the hardest part, certainly the part that took the longest, was deciding which photos to use when illustrating the many points that I wanted to explain to readers. I felt that you, the reader, was (and is) the most important and central recipient of the book. It is important to me that the story is told with photos, rather than just with text. I know that you've probably heard that a picture is worth a thousand words—well, I believe it and have put it into practice with this book.

I owe many people a great deal of gratitude for supplying the photos. Indeed, the job of selecting them was very difficult because there were so many that would have been perfect, but the space in the book didn't allow the use of them all.

Most of the photographs show positive settings of special places in communities—however some show negative settings of decayed areas. My goal in writing this book was not to cause embarrassment to any community, but rather to show causes of decay versus the convenience, beauty and vitality that can be found in a walkable community.

In the last chapter of the book, I challenge people to have the courage to make changes in their communities. I too was challenged to have courage when writing this book. Be brave my reviewers and editors said. Therefore I made the decision to show and name the cities where I found these decayed and crumbling conditions. My hope is that I just might inspire those living there to make a difference too.

Like most broad studies, this book also takes the risk of over generalization. Of course, as an author, I worry that people will not accept the viewpoints I've written about in the book as the greatest thing since sliced bread. Imagine that! I know there will be some who'll remain skeptical. Yet research has proven time and time again, that the strategies I've written about really do work when properly built. I know that every person in every community—whether you're a resident, an elected official, a road designer, a community planner, or from any other segment of the population—will benefit from this book.

By reading this book, I hope you get a good understanding of how the community process works so that the playing field is leveled. If everyone is informed of all road building possibilities, then everyone is more likely to reach a common ground much faster. So readers, hold your ground and be bold! Be courageous and be the leader who convinces everyone that change can be a good thing!

Now first and foremost, I want to thank Dan Burden for opening my eyes and changing my life. Dan is the foremost quoted expert, leader, cheerleader and pundit on walkability in America. He heads his own consulting firm, Walkable Communities, Inc., and has traveled all over America promoting walkable communities since 1995. He recently accepted a position with Glatting Jackson Kercher Anglin Lopez Rinehart, Inc., a Florida engineering and planning firm. Dan gladly wrote the foreword, submitted many of the photos and reviewed the book. In fact, most of the strategies in this book were first developed and promoted by Dan. With his permission, I have shamelessly made use of his workshop and presentation materials. Dan has become my colleague and partner in a growing national movement that encourages the development of more livable and healthy communities. Dan, has served as my mentor and over the years has passed on his enthusiasm and knowledge to me so I could write this book. It is a privilege to work with someone who has such passion for his craft and I truly admire his tenacious dedication for improving the livability of communities. Without Dan, there would not have been a walkable communities movement. Without him, there would not have been this book.

Many thanks also to Bekki Wasmuth, a student-photographer. She took many of the photos around the Detroit Metro area as well as Flint, Saginaw, Bay City and Midland. Bekki has been a friend of my daughter, Jamie, since they were both in pre-school. How fortunate that Bekki is taking photography classes at a time when I really needed some expert help. It's so nice to know the right people, at the right time, and in the right place!

Russ Soyring, planning director for the City of Traverse City, also reviewed the book and provided many of the photos from around the Traverse City area. Russ is past-president of the Michigan Association of Planning, a Chapter of the American Planning Association. As a long time friend, the story of walkability would not have been as easy to tell, or as interesting to show if it wasn't for his comments and the wonderful photos that he allowed me to share with you.

Another big thank you goes to Mark Wyckoff, founder and president of the Planning & Zoning Center in Lansing. Mark spent several days reviewing the book and helping me with guidance for publishing—even though he was sick at the time! Mark's comments were invaluable and it was he who gave me encouragement to teach a university course about planning for walkable communities. I started teaching at Eastern Michigan University winter term 2006, and am using this book as one of the required readings.

It's not often that I get to thank my mother in writing—but I owe her a few kudos too. Thanks Mom (by the way her name is Elaine Wetherell) for reviewing the book from the perspective of someone who didn't have a clue about walkability—at least not until she read the book! With great insight she encouraged me to leave the planning jargon out of the book. I couldn't exactly leave it all out, but I did take great pains to simplify the language. I know this is what Moms do, but I can't thank her enough for caring about the project to spend several nights and days reading through the first draft of the book. Thanks to her I have tried to tell the story of walkability in a way that everyone can understand—through pictures.

The following people supplied me with a wide array of photographs from all over Michigan and the U.S: Dan Burden, Russ Soyring, Bekki Wasmuth, Jamie Kettren, Judy Gallo, Brad Barrett, Lee Kettren, Scott Wasmuth and Aeric Ripley. From a selection of 6,459 photos, I selected 236 to use in the book to demonstrate the many points I wanted to make. My deepest thanks to each of you.

Also, many thanks to Bob Barber and James van Hemertere. I owe them both big time! They both gave me a pep talk that was badly needed when I began to loose my enthusiasm for finishing the final chapters. Their words of encouragement made me realize that this is a story that needed to be told—and the sooner, the better!

Finally, I must mention my family who was forced to develop a great deal of patience over the life of this book. My most heartfelt thanks to Lee, Jamie, Jeff, Stacey, Grace, Jenny, Brian, Tootie and the four amigos—Alley, Molley, Halla and Pistol. Thanks for all your support. I hogged the computer relentlessly—yet you still gave me encouragement to finish. You guys are the greatest family a person could ever have.

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About the Author

Leslie E. Kettren, AICP, PCP, is a professional community planner with an extensive background in Downtown and Pedestrian Planning and Economic Development. She has worked in the towns of Milford, Ferndale, Clawson, East Lansing and Imlay City, Michigan and in Sellersburg, Indiana and Claremont, New Hampshire.

As a manager, Leslie has supervised staff, prepared and analyzed reports, managed budgets and coordinated with project teams and intergovernmental agencies to implement various community planning projects. In addition, she has performed downtown revitalization, walkable communities initiatives, streetscape construction, master planning, ordinance writing, site plan review, code enforcement and building inspection, to name a few.

As a leader, Leslie has been elected to public office, served on the planning commission and also on many national, state and local boards and committees. She is past president of the Michigan Association of Planning and served a 4-year elected term on the American Planning Association's national Board of Directors.

Leslie often speaks at conferences and has published many planning articles and reports. She is a site visitor for the Planning Accreditation Board, having most recently evaluated the University of Wisconsin-Milwaukee's Masters Degree of Urban Planning program for reaccredidation. In 2003, she formed Kettren & Associates, Incorporated, a planning consulting firm. In her spare time, she teaches Planning for Walkability at Eastern Michigan University as adjunct faculty. Leslie and her husband, Lee reside in Milford with their two cats.

"In this important writing, Leslie gives us a thump or two, as well as gentle and not so gentle footsteps and paths to follow."

— **DAN BURDEN,** founder-executive director of Walkable Communities, Inc.

"This book is written in a simple and easy style…a must read for all decision-makers in Michigan."

— **MARK WYCKOFF,** founder-president of The Planning & Zoning Center

"The photos tell the story—simply for all to understand. A great read with an important message."

RUSS SOYRING, City of Traverse City Planning Director and past president of the Michigan Association of Planning

…A Story About Community

Have you ever visited a town that you just knew was special? Maybe you weren't even aware of why you felt that way—you just knew you never wanted to leave.

These special places always had a welcoming feel about them with their tree-lined streets, children playing on the sidewalk and neighbors sharing gossip on the front porch. I bet it even had a lovely little downtown where shoppers could spend all day wandering around looking through the brightly decorated windows of the shops there. You didn't need a car to get around, your feet worked just fine, and after all, what would be the sense of driving when everything was so close? While it seems that in this day and age towns like this can only be found on television, there are still places in this world where they exist.

Five years ago, I began to research and find out more about the sense of place that makes some towns in Michigan so wonderful, and why others remain in a state of deep failing and fatigue. They say a picture is worth a thousand words, and so keeping this in mind, I've written this book to show you how we can turn our sometimes forbidding and hostile urban landscapes into the types of welcoming places in which we all wish we could live.