The Community Design Manual

Ulster County Planning Board

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Introduction

Why Town Planning and Design Matters

Town planners who hope to manage development, with all of its benefits and problems, will be facing a new set of challenges in the coming decades. Demographic shifts, resource scarcity, and a changing relationship between state and local funding for infrastructure will make smart community design look not so much like good planning but more like a survival strategy.

At stake is not just the appearance and character of your communities, but its economic vitality. There is a very real relationship between the two: We know that bad development and sprawl looks bad. But it is also expensive to build and maintain and will become more so in the coming decade. A variety of demographic changes and an economy that will need to remake itself around new forms of production are creating urgency around the principles and strategies presented here.

Bad Community Design is Expensive

Part of this is because we will not be able to sustain what Strong Towns calls the "growth ponzi scheme". A lot of the sprawl you see around your community was subsidized by state or federal low-interest loans or DOT and others who helped build the roads and sewers. Or when the developers came in they leveraged their equity to finance the project and then pass this on to families or business who come in with mortgages and real estate loans to purchase property. But it is your municipality that assumes the long term burden of maintaining the infrastructure and the local tax revenues won't cover it. To pay for it, the municipality accepts new rounds of subsidized growth, equally unsustainable in the long term – hence the ponzi scheme.

A new road project in Afton, a community on the eastern edge of the Minneapolis/St. Paul Metropolitan area, is illustrative. Strong Towns calculated the internal rate of return on a $350,000 investment to re-build a road that served about 40 properties. They found that the $350,000 investment would require 79 years to recoup if property taxes increased by standard increments. Or, looked at another way, it would take a 46% increase in property taxes to pay off the bonds in a conventional 25 year time frame.

The other case studies show the same thing: that it will literally take decades for municipalities to recoup their part of the investments they have made in roads and infrastructure. The current growth pattern is simply not sustainable in the economic sense, let alone the environmental sense of that word The prescription? Get more value out of our investments by making better places and building less infrastructure. This Design Manual will show you how to do that.

Green Infrastructure is Lighter, Greener – and Cheaper

"Protecting and conserving the environment" is a common place goal of every comprehensive plan. But the real payoff comes from thinking beyond preservation to integration - to the ways in which development and natural systems can actually support one another. The preferred development patterns illustrated in this Manual demonstrate how the underlying natural systems can be used to create a framework for development that builds on the true character of the community and results in attractive, amenity-rich places where people and businesses will want to locate.

And there is a real financial payoff as well: green infrastructure is lighter, greener, and cheaper. Working with existing natural features and drainage patterns, you can reduce both cost and ecological damage. The financial burden of extending pipe systems can be reduced.

Typically, suburban parks and stormwater infrastructure are designed and serviced separately. This increases the total cost to the community and uses land inefficiently. In the development patterns modeled here, parks and stormwater management are integrated so that the functions provided by one system support and benefit those provided by the other. Combining these systems reduces costs and land waste, ensuring maximum benefit for each dollar spent. Unnecessary costs can often result from "overbuilding" infrastructure. Narrower, cheaper streets provide more room for infiltration trenches, street trees and sidewalks. Soft infrastructure, such as pervious sidewalks, reinforced grass shoulders, individual tree grates and overflow inlets replace expensive and ecologically destructive hard infrastructure such as curbs and gutters. One study by the Design Centre for Sustainability found that on a per dwelling unit basis, the cost for infrastructure in for a development built according to sustainable practices was less than one fifth the cost of infrastructure in a conventional development. The savings come from a variety of sources - road widths, from allowing gravel lanes, from the shorter distances between utility hookups - but some of the most dramatic savings were from reducing stormwater management.

This Design Manual will show you how to make green infrastructure pay off, both at the scale of the place types described and at the level of best-practice storm-water management and will explain how you can implement these strategies through your regulations and governance.

What if nobody wants to live in your town anymore?

"Density" may be a bad word in your community and the reflex reaction to new development may be to try to stop it. But be careful what you wish for: if you are too successful, you're community won't be able to attract either the jobs – or the people to fill them – that can insure your prosperity and vitality as a place. You will have to face the declining support from federal and state sources described above even as your tax base shrinks.

The good news, according to the Metropolitan Research Center, is that a variety of factors are

dampening demand for large-lot single family houses and creating demand for the kinds of compact, mixed-use places described in this Manual:

- Our population is aging and when 60% of this growing population of seniors decides to relocate, roughly 60% will choose to live in apartments.
- Household composition is changing so that by 2030 conventional families with one or more children will make up only about a third of the households.
- The days of the very-low-cost mortgage are over and as average incomes decline more people will be looking to either buy smaller units or to rent.
- Transportation costs are consuming a larger and larger proportion of household expenditures and so "affordability" is not only a function of what the shelter costs, but of how people move around.

This mismatch of supply and demand is a national issue. The problem is that your community may have built an awful lot of what people no longer need and not have nearly enough of what people want. All of this suggests that the design strategies presented here are not only desirable, but necessary:

- The connectivity strategies described in the Links section will show you how to enable mobility of all kinds and in so doing, how to reduce transportation costs.
- The mixed-use development strategies described in the Complete Communities section will help you create the diversity of housing types necessary to meet the changing demands of a changing population.
- Finally, the strategies in the Nature section will show you how to create the amenity rich quality of life that a new generation of young entrepreneurs will demand before they come to live in your community.

How this Design Manual Can Help You

Your community is shaped by a myriad of incremental land-use and design decisions that are made at the local level by zoning boards and planning boards. These entities are staffed almost entirely by citizen planners and advocates who are dedicated, but largely untrained. With scarce resources for professional consultants, these citizen planners desperately need tools that can help inform their decisions – tools that link best practice designs to best practice, achievable implementation strategies. This manual is that essential tool and it is targeted to those citizen-planners and advocates in your community who advocate and implement sound planning. But it can also be used to inform prospective developers and agencies on best practices and on the kinds of development that you would like to see.

What you will find in this Manual are not highly stylized design solutions. Rather, you will find solutions that reflect the kinds of incremental changes that people can recognize and which can be accomplished over time. And to be useful, the Manual is not just a collection of great details - the manual locates those details in each of the design solutions so that you can see where and how the details can be used.

Finally, this Manual is based on a reality that you will recognize from your own experience: design and implementation are linked and your local capacity effects which tools and strategies you select. To that end, the manual not only gives you the design solutions, but links them to a complete set of implementation strategies, including the implications for local capacity.

New environmental challenges, rising costs of infrastructure, and changing demographics are your challenges. This Manual can show you how to take those on in a way that is not only responsible and attractive, but economical as well.

You really can control development

Some amount of growth is inevitable - and probably desirable. Every community has open spaces that they would like to see protected or derelict sites that they would like to see redeveloped. Managing growth – not trying to stop it - will enable you to accomplish these and other complementary goals. Rather than desperately trying to react to developers you can make it clear at the beginning of the review process - or even before the community is confronted with a proposal – what kind of development they would like to see.

Communities are hardly helpless. In fact, you are in control:

- **You Control the Land Use Regulations:** The Tools and Actions section of this Manual describes a full range of planning tools and land use regulations at your disposal and explains how these tools can be used to achieve smart growth objectives. These range from the most basic zoning tools – controlling the uses, the parking, the bulk and the site planning - to more complex tools such as overlay zones and design guidelines. A full range of Planning Tools are also described, from comprehensive plans to resource-specific plans to economic development plans.
- **You Control the Process:** The Tools and Actions section of this manual also describes the Administrative Actions you can take to shape development. Time is money and so is uncertainty. To the extent that you can facilitate the kind of development you would like to see by expediting the review processes or pre-approving certain kinds of development, you can shape what developers will propose and build.

We understand that when it comes to implementation, one size does not fit all. Tools need to match your local capacity. The Appendix not only describes the tools, but identifies how your local capacity to develop and administer the tools may come into play.

First, get the Big Ideas right:

Regardless of what community you live in or where that community is located, there are certain objectives that are essential to enabling good development. Throughout the manual, these are presented as three, color-coded objectives:

Nature – Protect and enhance the environment.

Links – Promote connectivity and mobility of all kinds

Communities – Create compact, mixed-use neighborhoods.

For each of these objectives is associated with Design Details and implementation Tools and Actions and these can be used to navigate between sections of the Manual.

Nature	Links	Communities
Create the urban forest • Landscape parks and plazas • Create green streets **Create linked open spaces** • Link protected resource areas on individual parcels • Create and link parks and greenways **Protect natural and scenic resources** • Create resource-specific plans and regulations • Mandate conservation subdivisions • Protect watersheds and freshwater wetlands • Protect farmlands	**Maximize Connectivity** • Create a connected street network • Create new roads and connections into and between developments • Create a trail network **Design streets for people** • Design for pedestrians and bicycles • Design beautiful streets **Manage the automobile** • Deal with parking creatively • Accommodate transit • Traffic-calm roads	**Create diversity of land uses** • Integrate neighborhood civic uses • Create diversity of housing types • Provide for flexible use/mixed use **Create beautiful neighborhoods** • Orient buildings to streets • Promote context-sensitive design **Create pedestrian-oriented commercial areas** • Promote mixed-use buildings • Promote infill development • Create "main street" environments

Best-Practice Objectives

Where, What and How to Grow

This Manual describes the Where, What and How of good development, and each of these is addressed in a separate section. There is also brief discussion at the end of this introduction about how you can steer growth to the right places.

Where should our community grow?

The **Places** section describes preferred development patterns for the kinds of places that will be familiar to you and can be found in every community: Downtowns, the Edges of downtowns, Corridors, Crossroads, New Neighborhoods and Rural.

The preferred designs are explained in terms of the smart growth objectives of Nature, Links and Communities (see chart). The design details associated with the smart growth objectives are located on the plans so that you can understand where particular details are most applicable.

What should our community do?

The **Details** section provides design and development details. These best-practices were collected from around the country and can are universally applicable.

The Details are also grouped according to each of the three color-coded objectives of Nature, Links and Communities.

How should our community do it?

The **Tools and Actions** section explains implementation in terms of planning, regulations and administration. These are also grouped according to each of the three color-coded objectives of Nature, Links and Communities and cross-reference the Details that are most relevant for implementing that smart growth strategy.

How to Use This Manual

As described above, the manual is divided into three sections:

1. Places

In this section you will find drawings that explain a preferred way to accommodate development. Five typical kinds of places that will be familiar to you are described: Downtowns, the Edges of downtowns, Corridors, Crossroads, New Neighborhoods and Rural. For contrast, the typical non-sustainable form of development is also illustrated and described.

Each preferred development pattern is described with diagrams and using the best-practice objectives and details.

At the end of this section, there are some case studies of built projects for you to refer to.

2. Details

In this section you will find design details organized in terms of the three best practice objectives: The Nature-themed details address open space preservation and natural resource conservation, such as conservation subdivision design and storm water management details. The Link-themed details address connections and mobility, such as multi-modal roadway design, parking design, and trail networks. The Communities-themed details focus on development, including the form of different kinds of neighborhoods and mixed-use buildings.

3. Tools and Actions

In this section you will implementation strategies also organized around the three best-practice objectives of Nature, Links and Communities. Three kinds of implementation strategies are described: Planning, such as comprehensive plans; Regulation, such as zoning; and Administrative Actions, which includes different kinds of review processes.

Each of these sections can be used independently:

Places: If you are trying to understand what a part of your community can look like if it is designed properly, you can just look at all or some part of these best-practice designs.

Details: If you already know what kind of detail you are looking for and where you would apply it in your community, you can just look up the relevant detail in this section.

Tools and Actions: If you what your smart growth objective is – for example, creating compact mixed-use developments – you can just look up the various planning, regulatory and administrative tools that can get you there.

However, the Manual has been designed to enable a comprehensive approach to your smart growth challenge – from design, to details to implementation:

The Manual is extensively cross-referenced to enable you to move between the three sections. The best-practice designs, the details and the implementation tools, are all color-coded according to the three big themes of Nature, Links, and Communities.

For example:

If you have selected the kind of place you need to address in your community…

You can find that kind of Place in the first section and see the best practice designs explained in terms of diagrams. The diagrams show you how the Nature, Links and Communities objectives apply as well as what the most relevant design details are and where they best apply.

Then, using the color-coded detail number, you can navigate to the relevant Details in the second section.

Or, using the best practice objective that is listed, you can navigate to the Tools and Actions section and see what are the most relevant planning, regulatory or administrative actions you need to take to achieve a particular objective. The Detail numbers are also listed here again so that you can see what details are most relevant to your implementation tool.

As another example:

If you have selected the kind of best practice objective you want to implement…

You can find that objective in the Tools and Actions section and find out what are the most relevant planning, regulatory or administrative actions you need to take to achieve a particular objective.

Then, using the color-coded detail number, you can navigate to the relevant Details in the second section.

Or, you can go back through the first section to see how that best practice objective applies in each of the various Place types.

How this manual is organized

This manual is organized in to three sections:

Section 1:

PLACES

WHERE to grow

The first part of the manual describes best-practices for accommodating growth in each of five types of places. Each place-type has been assigned an icon to assist navigation by the user.

Downtowns:
infill in existing centers

Edges:
extend existing centers

Corridors:
re-make the commercial strips

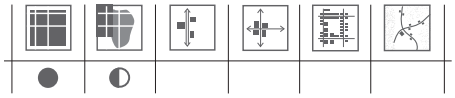
Crossroads:
complete emerging centers

New Neighborhoods:
insure sustainable development in the landscape

Rural:
save the land

In each case, the best-practice design study is explained in terms of the three themes explained in the Details section—Nature, Links and Communities. The best-practice design details are keyed into the drawings so that the user can see where the various details apply. The detail numbers can also be used to navigate to the other sections of the manual.

At the end of this section, there is a collection of **Case Studies**. The Place icons are used to suggest the degree to which a particular case study is representative of one of the five place-types.



● Directly related

◐ Partially related

○ Indirectly related

Section 2:

DETAILS

WHAT to do

The second part of the manual is a collection of design details which can be used to implement the best-practice objectives.

The numbers of the details, as well as the edges of the pages on which they appear, are color-coded according to the three themes described above—**Nature**, **Links** and **Communities**.

Nature: This is the underlying framework of natural resources and open spaces around which development patterns must be organized in order to protect the environment and preserve the integrity of natural systems.

Links: This is the linking of all elements of the built environment by creating as fine a grained street-and-block network as possible and by enabling all forms of mobility to reduce dependence on the automobile

Communities: These are places where, to the greatest extent possible people can live, work, shop and recreate within walking distances. Building complete communities is essential for reducing dependence on automobiles, for advancing equity, and for fostering special interaction.

Section 3:

TOOLS & ACTIONS

HOW you need to do it

The third part of the manual explains the tools and strategies that can be used to implement the best practices.

- **Planning Tools & Actions:** These are the documents that set out the goals and objectives of the community and that will be implemented through regulations and administration. The Comprehensive Plan is the most fundamental of these, but planning documents can include area-specific or resource-specific plans, economic development plans, and transportation plans.
- **Regulatory Tools & Actions:** These are the laws and regulations that are used to control development. Zoning in its various forms is the most fundamental of these, but this can also include other kinds of regulations, such as laws affecting natural resources.
- **Administrative Tools & Actions:** These are actions that governments can take that shape development, such as capital expenditures on different kinds of infrastructure (roads, water, sewer), purchasing of development rights, public-private partnerships, or the administration of various review procedures, such as design and site-plan review.

Again, these are organized into the three major themes—Nature, Links and Communities—and color-coded accordingly. The details associated with each of the strategies are repeated here so that the detail numbers and the best-practice strategies can be used by the reader to navigate back to the type of place in the first section or to the detail itself in the second section.

In the **Appendix** at the end of the manual, various Tools and Actions are described in terms of the Purposes, Issues and Advantages associated with each. Also, there is a brief explanation of the requirements for local capacity, such as the cost of new studies, or the administrative burdens of new review procedures.

PLACES

WHERE to grow

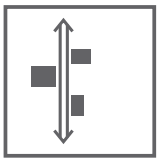
Downtowns – Infill the Centers

Downtowns are places that already contain a mix of activities associated with a complete community: places to shop, to work, civic and public spaces and a wide variety of housing types. Municipal services (water, sewer) are in place and it is capable of accommodating some forms of transportation.

Edges – Expand the centers

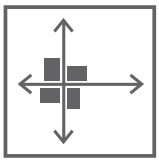
Edges are places into which the street-and-block network and land use patterns of a downtown can be extended. It may be completely undeveloped land. More likely that it will be a place that already has some development and infrastructure but at a greatly reduced density so that there is an opportunity for a significant increase in development.

Corridors – Retrofit the strip



A commercial corridor is a road that is lined with auto-oriented commercial uses. While there may be other kinds of activities within the surrounding area, the commercial corridor is almost entirely single use. With a few exceptions in small areas, the environment is built around the automobile, so much so that auto access is excessive in scale and creates a hostile environment for pedestrians.

Crossroads – Complete a new center



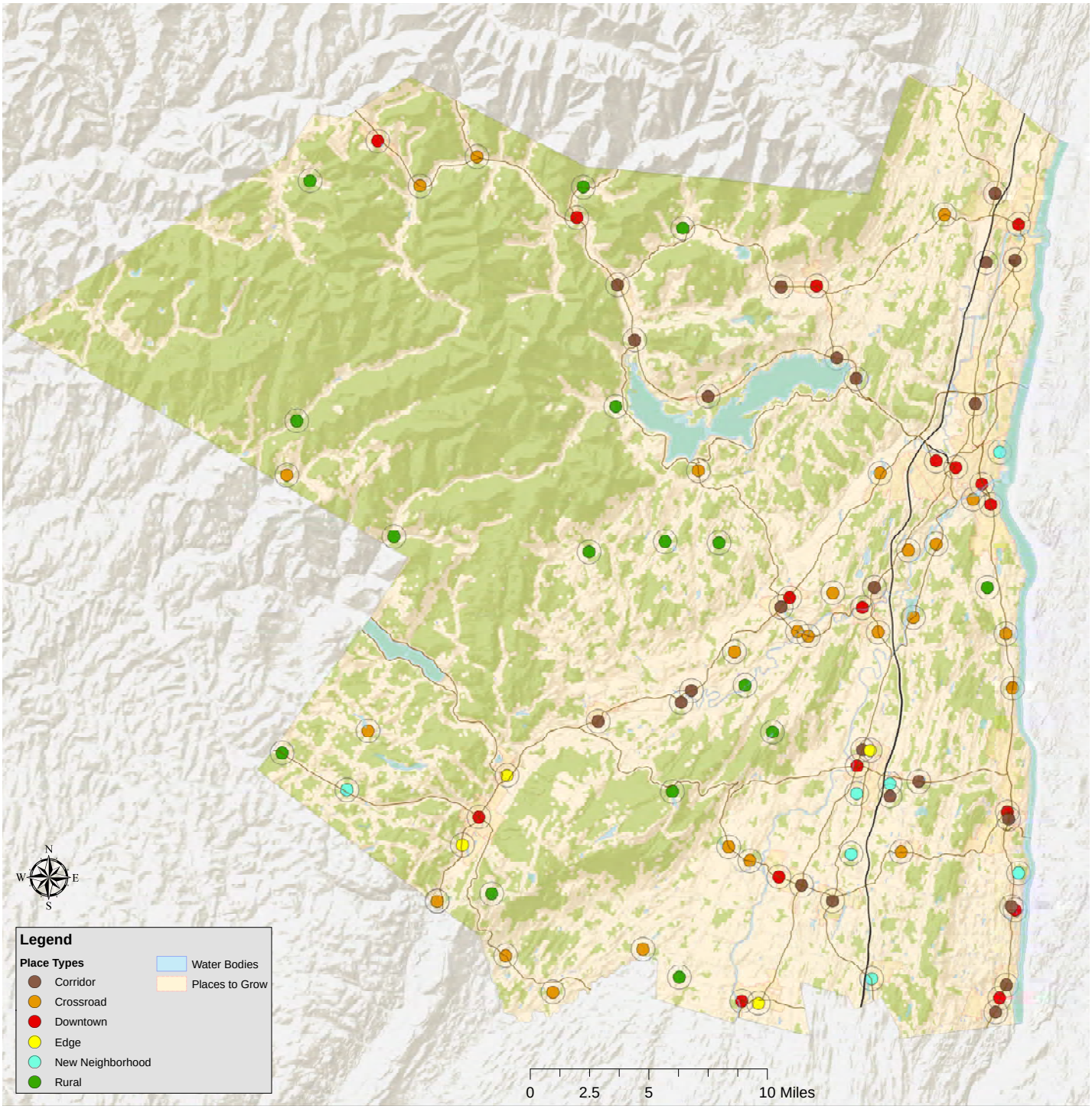
Crossroads are places that already have some of the ingredients of a new center but at lower densities: perhaps there are some auto-oriented commercial uses; often there may be a fire station, town hall or other civic use; it is surrounded by developable lands that are suitable for future walkable neighborhoods.

New Neighborhoods – Build communities

New neighborhoods are places that are largely undeveloped, but are still appropriate for new development. These are mainly residential places with a wide variety of housing types. But to be "complete communities" these include some amount of neighborhood retail and services, opportunities for live-work space, and civic uses.

Rural – Save the land

Rural Landscapes are places where the historic character of the land is still intact. What little development has taken place is at very low densities and is primarily in the form of farms and historic homesteads. Rural roads and scenic byways are an essential part of the experience of these places. Development in these areas is extremely limited and any new development needs to be exceptionally sensitive to the character of the landscape and the integrity of natural systems.



Places in Ulster County

This **Design Guide** is organized around six types of places: Downtowns, Edges, Corridors, Crossroads, New Neighborhoods and Rural.

In the following pages, we suggest how different places in Ulser County fit into these place types and have created a map that shows these. Of course, these are only suggestions and the categories are not absolute - most places share characteristics of more than one type of place.

DETAILS

WHAT you need to do

Nature

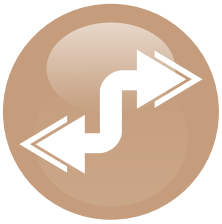
This is the underlying framework of natural resources and open spaces around which development patterns must be organized in order to protect the environment and preserve the integrity of natural systems.

Create the urban forest
- Landscape parks and plazas
- Create green streets

Create linked open spaces
- Link protected resource areas on individual parcels
- Create and link parks and greenways

Protect natural and scenic resources
- Create resource-specific plans and regulations
- Mandate conservation subdivisions
- Protect watersheds and freshwater wetlands
- Protect farmlands

Links



This is the linking of all elements of the built environment by creating as fine grained a street-and-block network as possible and by enabling all forms of mobility to reduce dependence on the automobile.

Maximize Connectivity
- Create a connected street network
- Create roads and connections into and between developments
- Create a trail network

Design streets for people
- Design for pedestrians and bicycles
- Design beautiful streets

Manage the automobile
- Deal with parking creatively
- Accommodate transit
- Traffic-calm roads

Communities

These are places where, to the greatest extent possible, people can live, work, shop and recreate within walking distances. Building complete communities is essential for reducing dependence on automobiles, for advancing equity, and for fostering social interaction.

Create diversity of land uses
- Integrate neighborhood civic uses
- Create diversity of housing types
- Provide for flexible use/mixed use

Create beautiful neighborhoods
- Orient buildings to streets
- Promote context-sensitive design

Create pedestrian-oriented commercial areas
- Promote mixed-use buildings
- Promote infill development
- Create “main street” environments

TOOLS & ACTIONS

HOW you need to do it

Planning Tools & Actions

These are the documents that set out the goals and objectives of the community and that will be implemented through regulations and administration. The Comprehensive Plan is the most fundamental of these, but planning documents can include are-specific or resource-specific plans, economic development plans, and transportation plans.

Regulatory Tools & Actions

These are the laws and regulations that are used control development. Zoning in its various forms is the most fundamental of these, but this can also include other kinds of regulations, such as laws affecting natural resources.

Administrative Tools & Actions

These are actions that governments can take that shape development, such as capital expenditures on different kinds of infrastructure (roads, water, sewer), purchasing of development rights, public-private partnerships, or the administration of various review procedures, such as design and site-plan review.

GUIDE TO LOCATORS

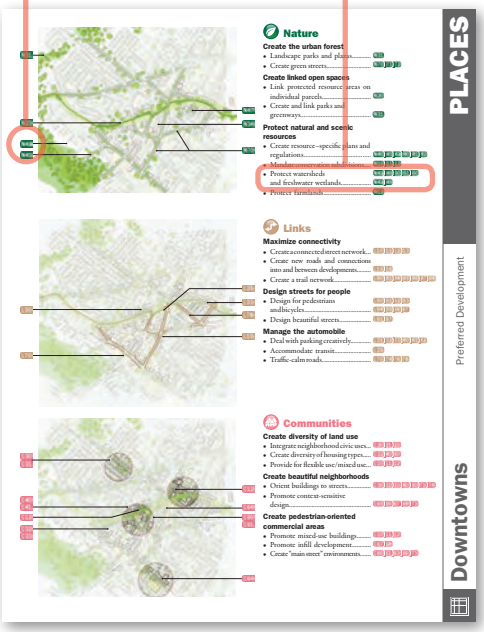
Use these codes to travel through the Design Manual

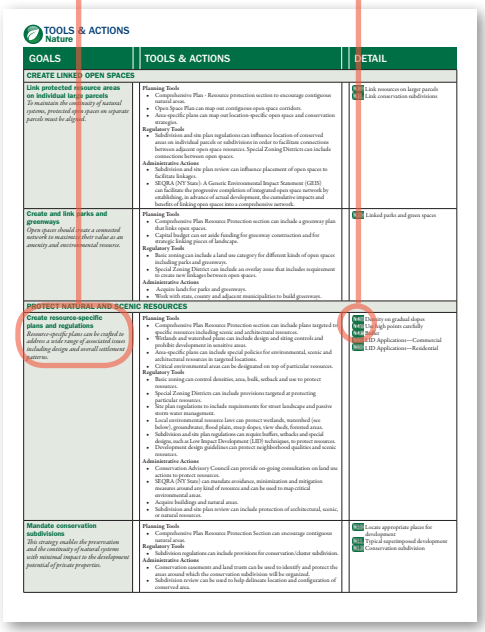
Principle

• Protect watersheds and freshwater wetlands

Detail

N42





Downtowns 

Edges 

Corridors 

Crossroads 

NewNeighborhoods 

Rural 

PLACES

WHERE to grow

Uptown Kingston

Downtowns

Downtowns are places that already contain a mix of activities associated with a complete community:

places to shop, to work, civic and public spaces and a wide variety of housing types. Municipal services (water, sewer) are in place and it is capable of accommodating some forms of transportation. A downtown is also the center for many of the important civic and commercial activities for the surrounding community. Downtowns can be of any size from rural village centers to large cities, but regardless they are all distinct and clearly identifiable as “places”. New development within downtowns—so-called “infill” development—is an opportunity to make efficient use of existing infrastructure. New infill development in downtowns should reinforce the unique character of the place.

Downtowns Diagnostic:

- ☐ People refer to this place as their "downtown" and it has the local "Main Street."
- ☐ Many of the buildings are older, dating from the mid-20th century and before.
- ☐ There is a pattern of connected streets and blocks.
- ☐ It is a walkable place.

Woodstock

Phoenicia

Highland

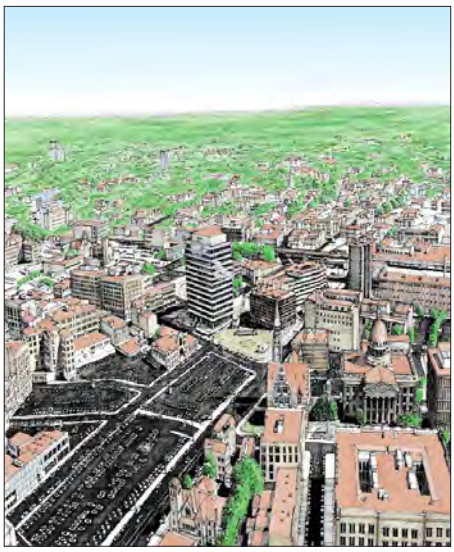
Ellenville

Saugerties

Rosendale

What to do:

- ☐ Zoning regulations and guidelines should promote compact, mixed-use development
- ☐ Flexible and creative parking regulations enable infill sites to be developed or rehabilitated
- ☐ Buildings are oriented towards streets and public spaces and parking is kept off of street frontages.
- ☐ Urban forestry and green infrastructure link open spaces.



Existing Conditions

EXISTING

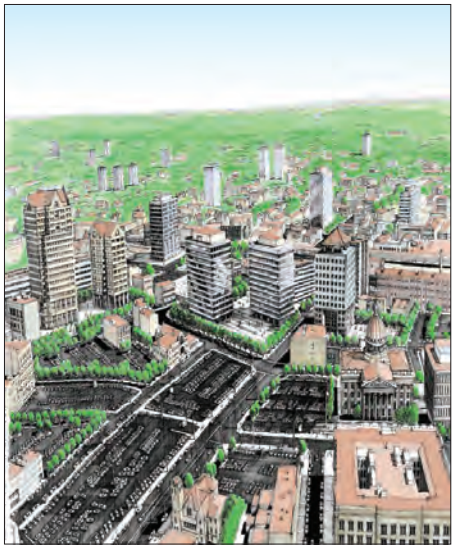
Downtowns are places that already contain a mix of activities associated with a complete community: places to shop, to work, civic and public spaces and a wide variety of housing types. Municipal services (water, sewer) are in place and it is capable of accommodating some forms of transportation.

Infill development within a downtown may take a variety of forms. It may be new buildings on vacant land or redevelopment of sites with underutilized or non-contributing buildings. It should also include the adaptive re-use of structures, enabled by a flexible approach to mixed use and parking.

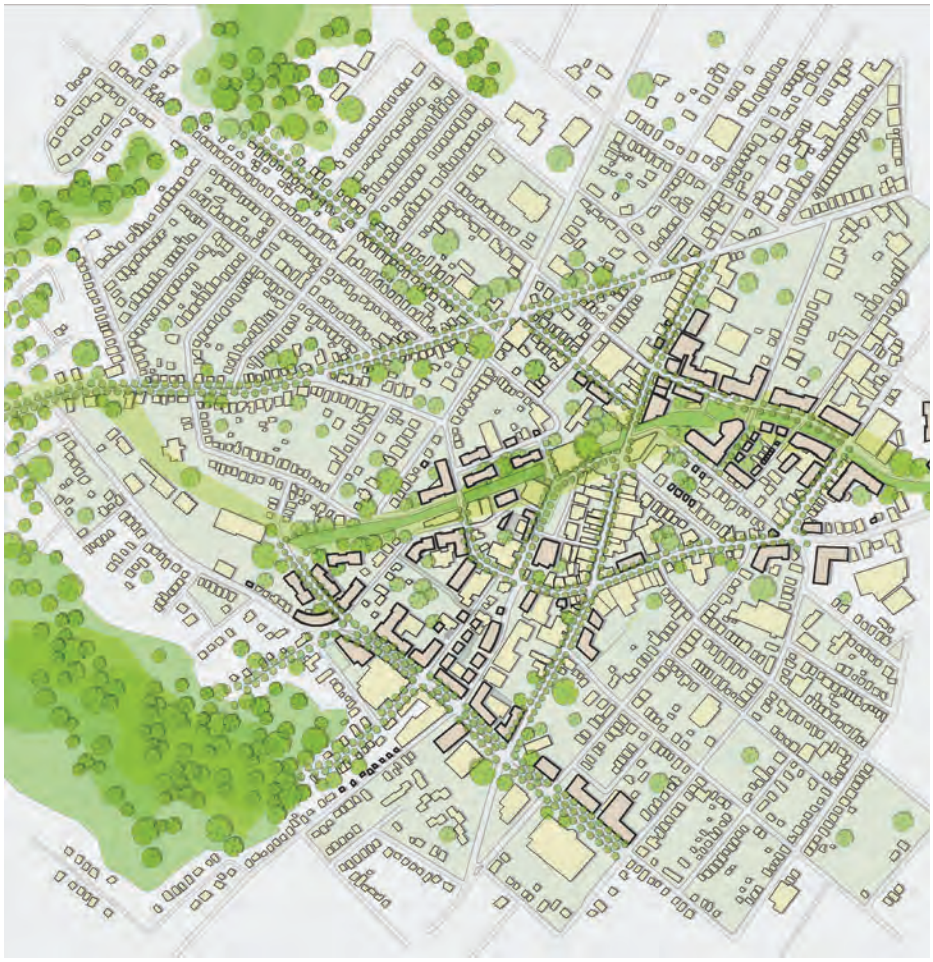
Within any one downtown there will be places with different character. There may be residential neighborhoods as well as mixed-use commercial areas that are more like traditional "downtowns". Each of these will require its own regulations and guidelines. In particular, a special set of guidelines will be required for the commercial "main street" areas. In addition, there will be guidelines that create and promote the active, pedestrian-oriented environment associated with traditional "main street": on street parking, flexible parking regulations (especially shared parking and reduced parking for small commercial businesses); uniform streetscape requirements for parking materials, signage, lighting, street trees; encouraging active ground-floor uses (especially retail), minimum requirements for transparency into ground floor stores, prohibition or limitation of auto oriented uses (such as drive-thru businesses, gas stations, car washes).

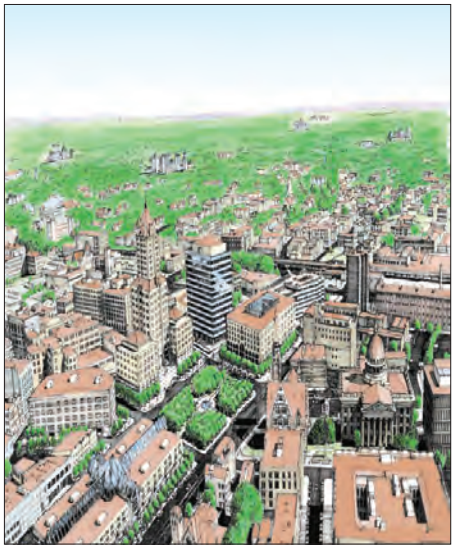
STANDARD DEVELOPMENT

- Conventional suburban parking standards require excessive amounts of off-street parking that make small-lot "infill development" difficult or impossible to achieve.
- Standard zoning regulations make it difficult to recreate the traditional mixed use "main street" type of building with people living above offices or retail.
- Standard zoning allows uses that are not compatible with pedestrian-oriented environments, such as gas stations.
- Standard zoning does not promote buildings that are designed to be complementary to the context.
- Larger redevelopment areas are planned as self-contained enclaves, not integrated with the surrounding context.
- Environmental features, especially streams, are buried or compromised.



Typical Development

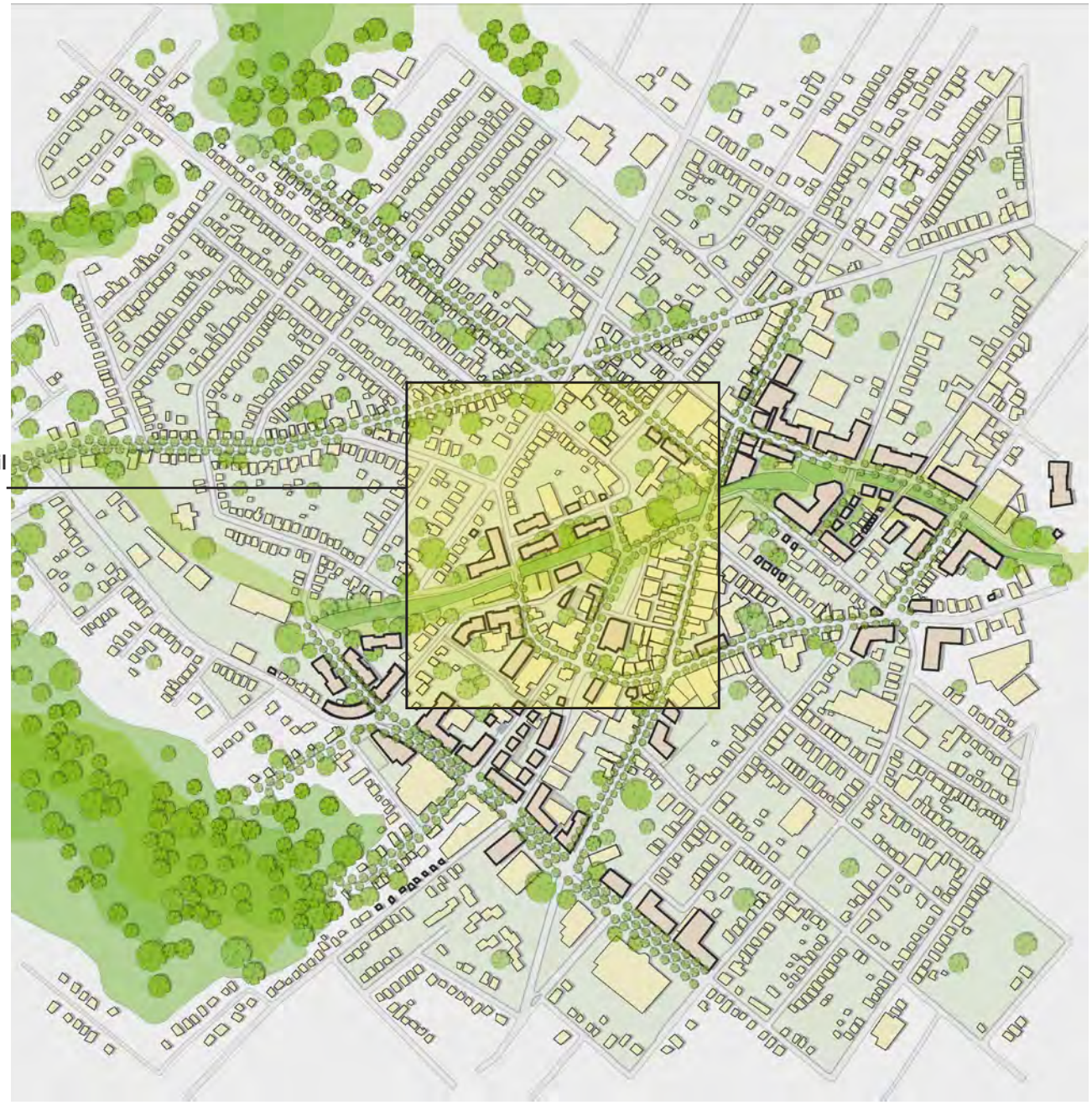


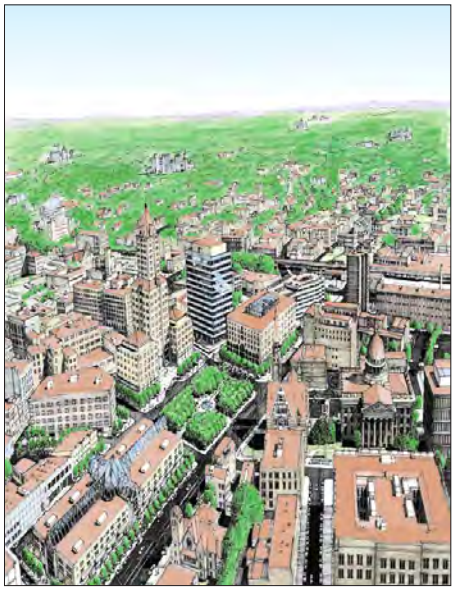


Preferred Development

PREFERRED DEVELOPMENT

- ☑ At larger redevelopment areas, the surrounding street area, block pattern is extended into the site and new greenways and other connections are created.
- ☑ Environmental features are reinforced and help organize the center. Natural features, especially stream courses are linked to elements of urban forestry (new parks, street trees) to create new linkages and amenities for residents.
- ☑ Zoning regulations promote traditional, compact mixed-use developments
- ☑ Design guidelines ensure compatibility with context.
- ☑ Flexible, creative parking regulations (shared parking, reduced requirements, location/configuration guidelines) enable contextual design solutions with high coverage and minimum setbacks.
- ☑ Where land and development values can support it, parking is in structures but parking structures are not allowed to compromise the pedestrian experience: garages are lined with street-friendly uses and are architecturally compatible with adjacent architecture.
- ☑ Buildings and sidewalks are designed to support existing or potential transit stops. This includes active streetfront for buildings, adequate space for bus stops or other transit facilities, and some increase in density near transit stops.





Preferred Development

Preferred Development Plan, Details

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Nature

Create the urban forest

- Landscape parks and plazas..... N31
- Create green streets..... N70 71 72

Create linked open spaces

- Link protected resource areas on individual parcels..... N20 47
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Links

Maximize connectivity

- Create a connected street network... L10 11 12 13 14
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Design streets for people

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Create diversity of land use

- Integrate neighborhood civic uses... C20 21 22
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- Promote context-sensitive design..... C65 66 67 68 73

Create pedestrian-oriented commercial areas

- Promote mixed-use buildings..... C10 11 12
- Promote infill development..... C67 68
- Create "main street" environments..... C60 61 63 65 66 73

D-A New Commercial District

- Buildings are sited in ways that define streets and public spaces.
- Parking is in structures, behind buildings, in the centers of blocks and otherwise not along the edges of streets and public spaces.
- New buildings are designed in ways that make them compatible with existing buildings: in particular, the apparent bulk of buildings reduced through changes in massing.
- The designs of buildings should respond to particular site conditions: important corners, buildings at the terminus of important view corridors.
- There should be a comprehensive strategy for greening the center by linking green streets, parks and landscaped urban spaces
- Promote mixed-use buildings.

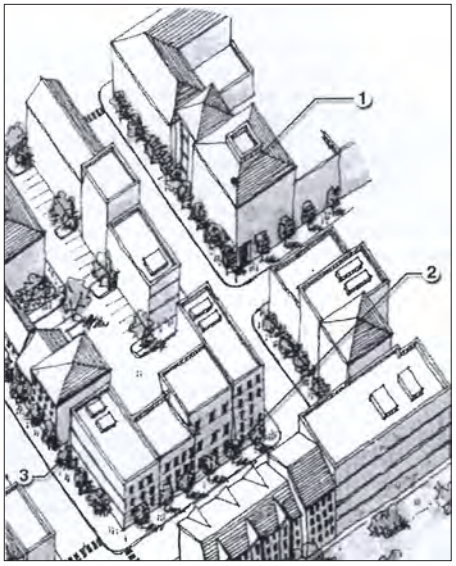


Image courtesy of City of Saratoga Springs

Urban center, Saratoga Springs, NY

D10 Existing streetscape

- Auto-oriented uses break up street wall
- Redundant and excessively long driveways
- Poor sidewalk conditions
- Poorly organized utilities and signage
- Vacant sites

D11 Public realm improvements

- Comprehensive streetscape plan
- New street trees
- Improved and/or distinctive paving
- "Bump-out" sidewalks at intersections
- On-street parking
- Utilities are underground or are clearly organized and consolidated

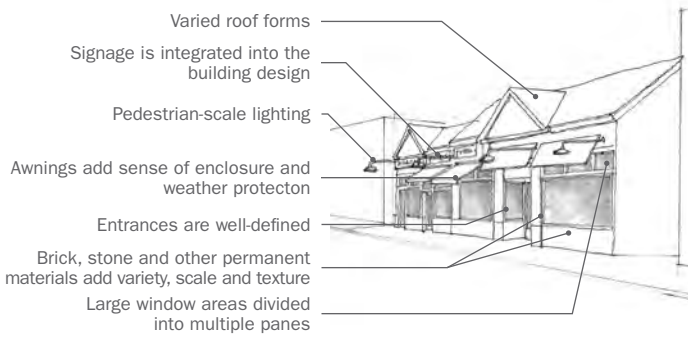
D12 New development

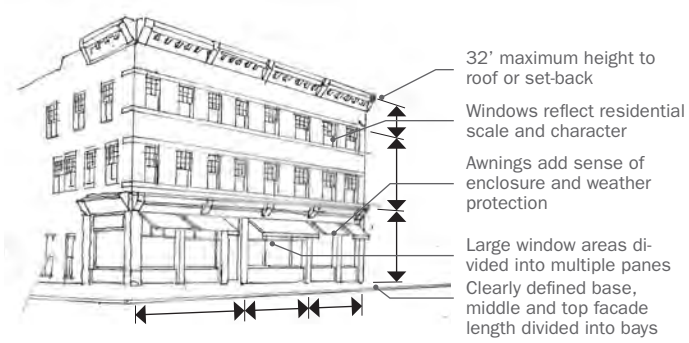
- Reduced parking allowances enable small infill sites to be redeveloped
- All new development is sidewalk- and pedestrian-oriented.
- Zoning allows replication of historic mixed-use buildings
- Design guidelines insure that character, placement and massing is context-sensitive

Images courtesy of New Jersey Office of State Planning

D14 Existing building re-development

- Adaptive re-use of existing buildings is an important part of center infill redevelopment.
- Historic elements are re-used and restored.
- Scale of fenestration respects historic patterns
- Storefronts are broken up into segments that respect the scale of the historic patterns





D30 1-Story commercial infill

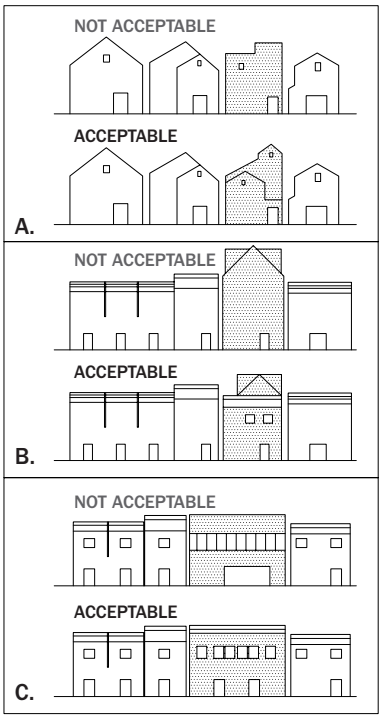
Character guidelines

Design includes varied roof forms, integrated signage, pedestrian-scale lighting, well-defined entrances, varied permanent materials, and large window areas divided into multiple panes. Awnings add a sense of enclosure/space.

D31 3-Story commercial infill

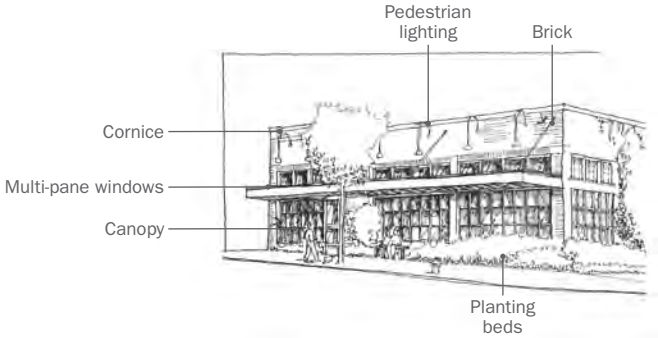
Character guidelines

Design includes 32' maximum height to roof or setback, large window areas divided into multiple panes, and clearly defined base, middle, and top. Windows reflect residential scale; awnings add sense of enclosure and weather protection.



D32 Facade context

Acceptable and unacceptable façade designs for infill contexts in terms of **A.** roof form, **B.** massing and **C.** window opening types and rhythm. Efforts to coordinate the actual and apparent height of adjacent structures are encouraged. This is especially applicable where buildings are located very close to each other. Similar design linkages can be achieved to adjust apparent height by placing window lines, belt courses, and other horizontal elements in a pattern that reflects the same elements on neighboring buildings.



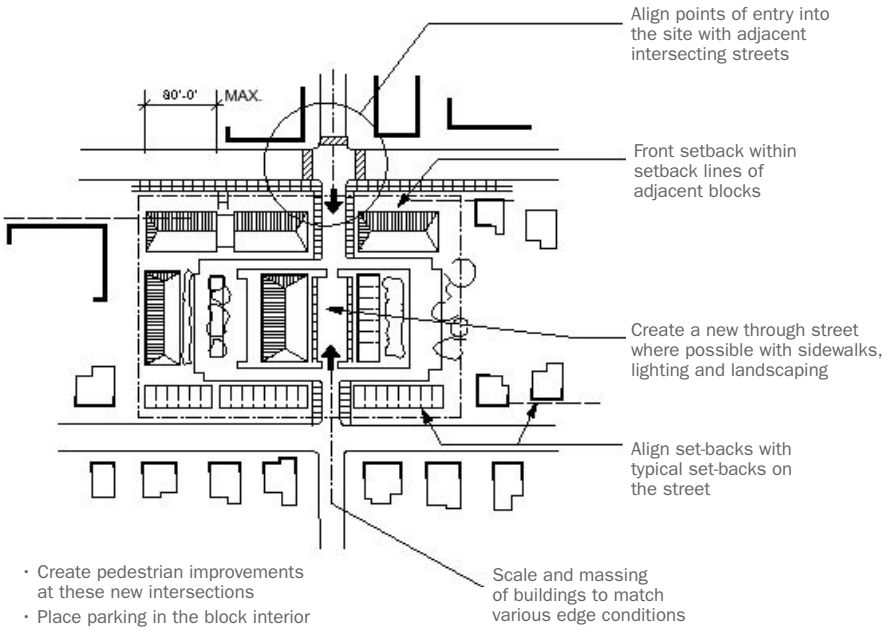
D33 Industrial redevelopment

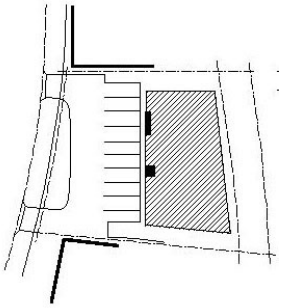
Character guidelines

Adaptive re-use should be seriously considered for underutilized or vacant industrial buildings. These buildings often have distinctive character and detailing as well as other assets such as large window areas and high ceilings.

D40 Large site development

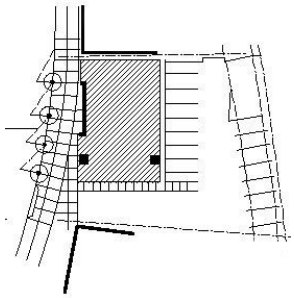
Some redevelopment sites will be places where the site must respond to several context conditions and where there is the opportunity for the redeveloped sites to create new connections in the neighborhood.





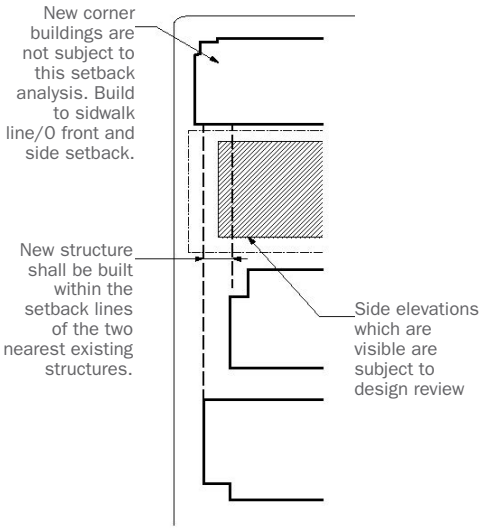
D41 Conventional infill

Site plan showing the conventional configuration for contextual infill commercial development with a parking lot in front of building.



D42 Preferred redevelopment

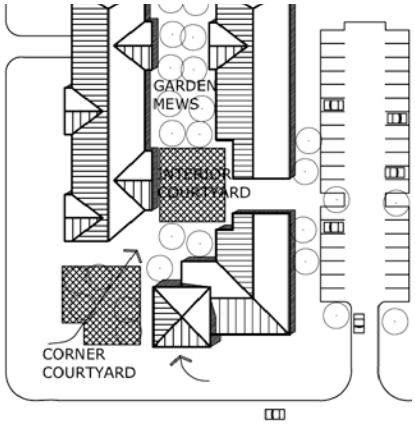
Site plan showing the preferred configuration for contextual infill commercial development with a pedestrian-scaled façade on the street and parking behind.



D43 Setback analysis for irregular frontage

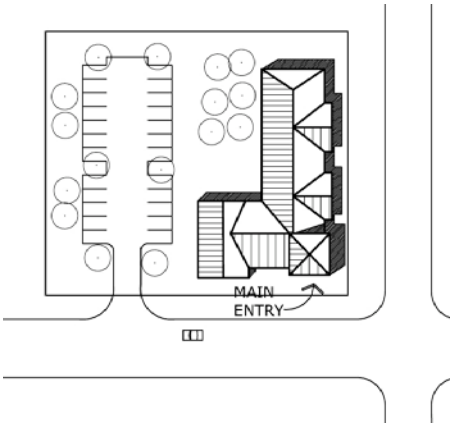
A building façade may, in some instances, be built to the minimum setback of existing buildings on adjacent properties in order to maintain a consistent street edge.

The principal building entrance and front shall face the street frontage and sidewalk. The main entrance shall not be oriented toward a parking lot.



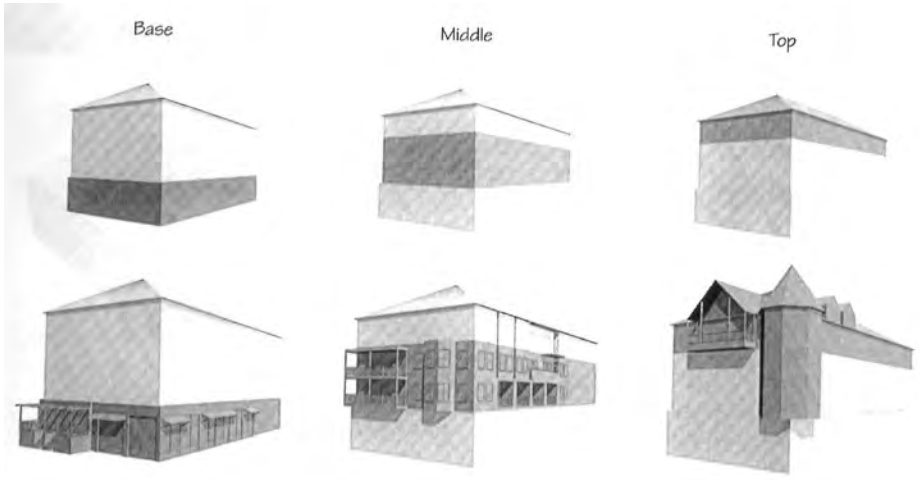
D44 Corner courtyard

While in general it is important to build out corners, for larger developments a clearly defined and well-detailed corner courtyard space can provide a transition to the space in the interior of the block.



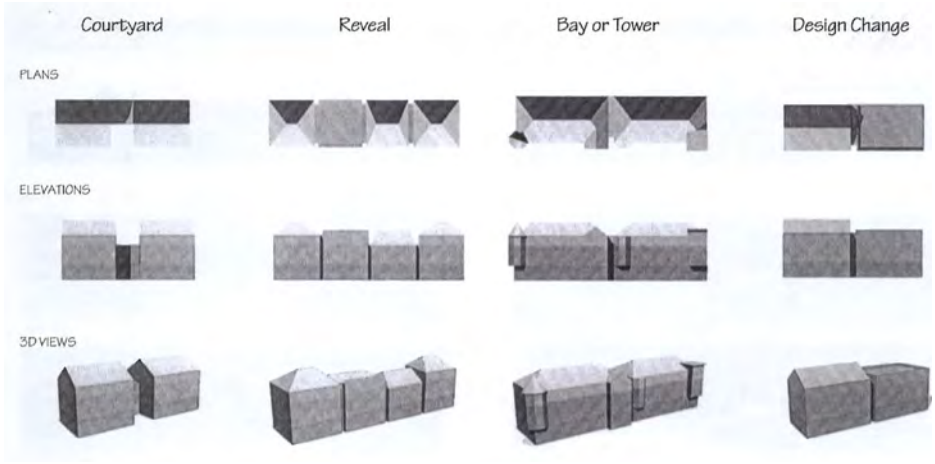
D45 Interior open space

For developments that create space within the block, especially if parking is in the rear or to the side of the building, the new interior space should be designed to create amenity and, if possible, relate to a rear entrance from the parking.



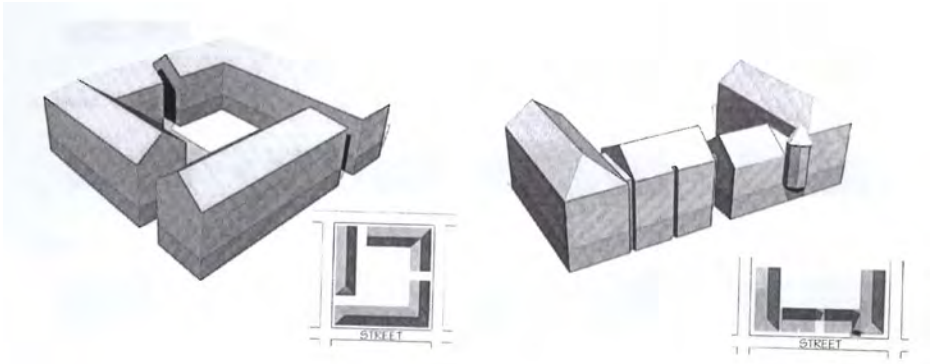
D50 Base, middle, top

Buildings should be designed to have a clear base, middle and top, with horizontal elements separating each.



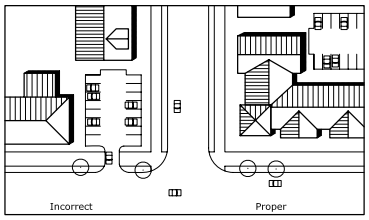
D51 Breaking down massing

Efforts to coordinate the actual and apparent height of adjacent structures are encouraged. This is especially applicable where buildings are located very close to each other. It is often possible to adjust the height of a wall, cornice or parapet line to match that of an adjacent building. Similar design linkages can be achieved to adjust apparent height by placing window lines, belt courses, and other horizontal elements in a pattern that reflects the same elements on neighboring buildings.



D52 Breaking down massing, block

Structures should be designed to reduce their perceived height and bulk by dividing the building mass into smaller-scale components. On larger buildings, the rooflines shall follow the variation in bay massing so as to appear as a series of side-by-side buildings or bays. Rooflines should be emphasized, for example with gabled or other pitched roof forms, parapets, balustrades, and/or cornices.



D40 Corner articulation

Buildings on corner lots should be oriented to the corner and public street fronts. Parking and automobile access should be located away from corners.

Buildings on a corner lot or a lot fronting two streets should have the main entrance on the primary street. This requirement does not preclude additional rear or side entrances facing parking areas.

Parking and automobile access should be located away from corners.

D40 Corner

A residential project on a corner lot should relate to both street fronts and provide visual and physical access to the project from the corner.

The massing of a building should reflect the importance of a corner site and relate to both street frontages.

Images courtesy of New Jersey Office of State Planning

D13 Corner lot infill development

- Infill building acknowledges scale and character of the context.
- Building design acknowledges the importance of corner sites.

Change planning and zoning to promote infill

	Typical current practice	Smart growth alternative
Maximum densities	Many suburban cities cap residential densities at 20–40 dwelling units per acre even in high-density districts, and at as little as 1–4 units per acre in low-density districts.	Eliminate maximum densities; instead, use height, bulk, and/or design restrictions. Institute minimum densities.
Minimum densities	Many cities have no minimum densities at all.	Establish minimum residential densities of at least 10–15 units per acre for single-family homes and at least 25–35 units per acre for suburban multifamily and downtown development; these should be much higher in central urban areas.
Minimum lot sizes	5,000 square feet or more	If any, 2,000 square feet for townhouse lots or 3,000 square feet for duplex or single-family detached lots, which is still large enough for a small backyard.
Dwelling units allowed per lot	Much urban land zoned for single-family detached housing (one unit per lot)	Encourage second units on existing lots in all residential districts. Allow multiple units in single-family districts if building design conforms to neighborhood context.
Height restrictions, downtown areas	Often 3–4 stories (36–45 feet) even in town centers; no minimum	At least 5–6 stories (55–70 feet) in downtowns and neighborhood centers; consider 10–20 stories. Also consider eliminating height restrictions in central areas. Institute a minimum of 2–3 stories or more.
Height restrictions, residential areas	2–2½ stories (24–30 feet)	At least 3–3½ stories (35–40 feet)
Lot coverage	Often less than 50 percent of the site	No maximum if parks and other public open spaces are nearby; encourage rooftop use for open space
Floor-area ratio*	Often 0.5–0.8 maximum in downtown locations; often 0.3–0.4 in suburban locations	At least 1.0–2.0 maximum, 0.5 minimum in downtowns, or use height limits instead
Front setbacks	Often 15–30 feet minimum except in downtown areas; no maximum	No minimum necessary in many areas; consider adding a maximum setback (a "build-to line")

Courtesy of Smart Infill by the Greenbelt Alliance

*Floor area ratio establishes the maximum square footage of development that can be built by multiplying the area of the property times the ratio.

Change parking standards to promote infill

	Typical current practice	Smart growth alternative
Downtown or transit-oriented locations	2 spaces per unit minimum	1 space per unit maximum. Allow car-free housing in locations close to transit. Encourage car-sharing and allow some required spaces to be used for car-sharing in large projects.
Residential neighborhood locations	2 off-street spaces per unit minimum	1 off-street space per unit minimum; require 1 additional on-street space for larger unit sizes. Consider parking maximums. Provide automatic reductions for affordable housing or housing for students, seniors, or people with disabilities.
Parking charges	None mandated	In residential settings, "unbundle" the cost of parking from the cost of housing by requiring separate fees for parking spaces in apartments and condominiums. In employment settings, require "cash-out" option where parking is subsidized.
Retail	3–5 spaces per 1000 square feet minimum, even in the downtown	No minimum downtown, near transit, and in neighborhood centers; elsewhere, 2 spaces per 1000 square feet. Allow businesses to pay in-lieu fee instead of providing parking on-site.
Office	3 spaces per 1000 square feet minimum	No minimum in downtown, transit-oriented, or neighborhood center locations; elsewhere, 1–2 spaces per 1000 square feet. Provide incentives to reduce commuter parking demand. Encourage local hiring.

Courtesy of Smart Infill by the Greenbelt Alliance

Route 32 New Paltz

Edges

Edges are places into which the street-and-block network and land use patterns of a downtown can be extended.

It may be completely undeveloped land. It is more likely that it will be a place that already has some development and infrastructure but at a greatly reduced density so that there is an opportunity for a significant increase in development. New development at the edge should as much as possible feel like a seamless extension of the existing urbanized areas and the mix of land uses may be similar but less intensive.

Edges Diagnostic:

- ☐ This is the edge of downtown or the edge of an older neighborhood.
- ☐ The uses are not mixed the way they are in the adjacent downtown: there may be both commercial and residential uses but these are primarily larger, separate, developments.
- ☐ There are almost no mixed-use buildings.
- ☐ The area is developed, but the intensity of existing development is not as high as the adjacent downtown or neighborhood.
- ☐ There are multiple opportunities to connect to the street grid of the adjacent downtown or neighborhood.

Kingston - Uptown/Plaza Area

New Paltz - Eastern Edge

Ellenville Edge

Saugerties - Northern Edge

What to do:

- [ ] A robust street network creates connections among parcels and between the expansion area and the existing center. Streets in the center are extended and missing links are completed
- [ ] Commercial areas are designed to balance pedestrian and automotive access. Pedestrian networks are completed.
- [ ] A continuous green network that maintains the integrity of natural systems and becomes a community amenity.
- [ ] There are almost no mixed-use buildings.

EXISTING

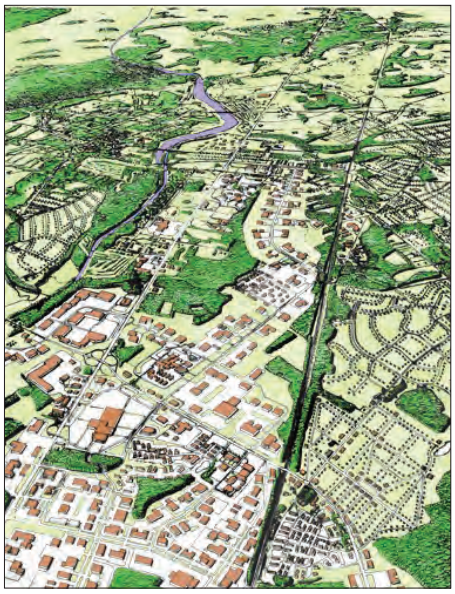
Edges are places into which the street-and-block network and land use patterns of a downtown can be extended. It may be completely undeveloped land. More likely it will be a place that already has some development and infrastructure but at a greatly reduced density so that there is an opportunity for a significant increase in development.

In the end, the objective is for the relationship between the existing center and the expansion area to be seamless.

Existing Conditions

STANDARD DEVELOPMENT

- Parcels are developed in isolation so that they do not relate to each other, or worse, are not compatible in design or use.
- Commercial uses are auto-oriented, creating an unattractive "strip" appearance in places that should be the gateway to the town center.
- There is a lack of connectivity between developments and the road networks. This creates traffic problems, bottlenecks at the few existing and new intersections, and prevents the new development areas from becoming integrated with existing centers and neighborhoods.
- The roads are designed for the automobile, whether new arterials or existing roads that are widened. In addition to the overall lack of connectivity, there are no continuous sidewalks and crossings, lighting, landscaping or other pedestrian amenities.
- Residential areas are designed as cul-de-sac subdivisions rather than complete neighborhoods.
- The underlying ecology is ignored or compromised.



Typical Development

Preferred Development

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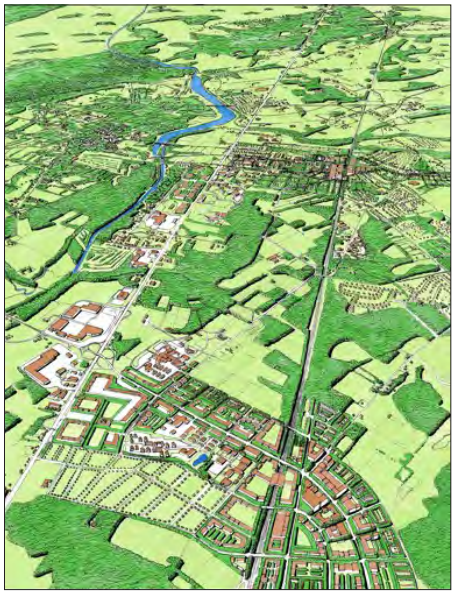
- ☑ The underlying "green infrastructure" is used to shape the development pattern, creating a continuous green network that maintains the integrity of natural systems and becomes a community amenity, including new parks, trails and greenways.
- ☑ A robust street network creates connections among parcels and between the expansion area and the existing center. The network connectivity should try, as much as is practicable, to approximate the street and block pattern of the center.
- ☑ Streets are designed for people, with continuous sidewalks, lighting landscaping and other pedestrian amenities. Street landscaping/urban forestry help maintain the continuity of natural systems from the landscape to and through the center. Buildings are oriented towards the street.
- ☑ Commercial areas are designed to balance pedestrian and automotive access (see design guidelines for commercial corridors). Parking is located behind or to the sides of buildings as much as possible.
- ☑ Mixed use development is encouraged to enable more walking between destinations.



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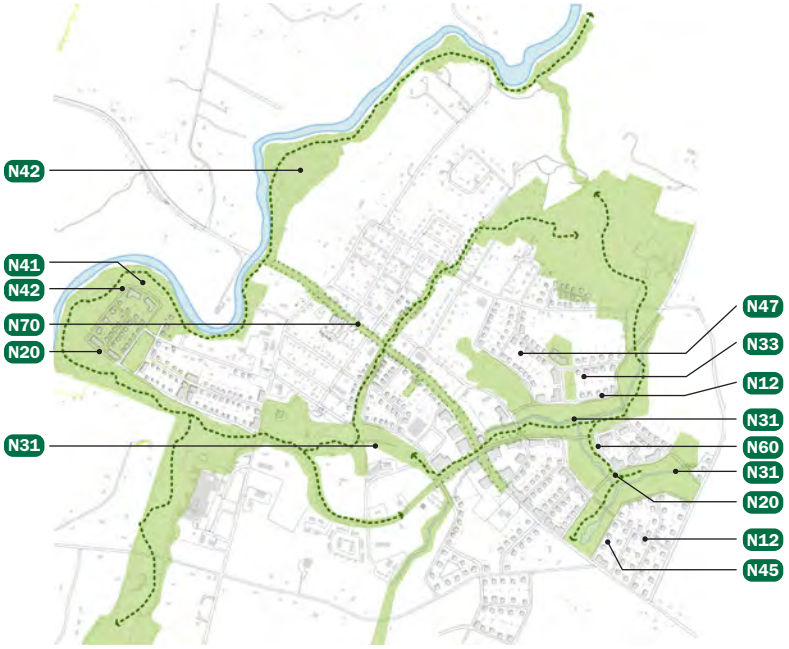

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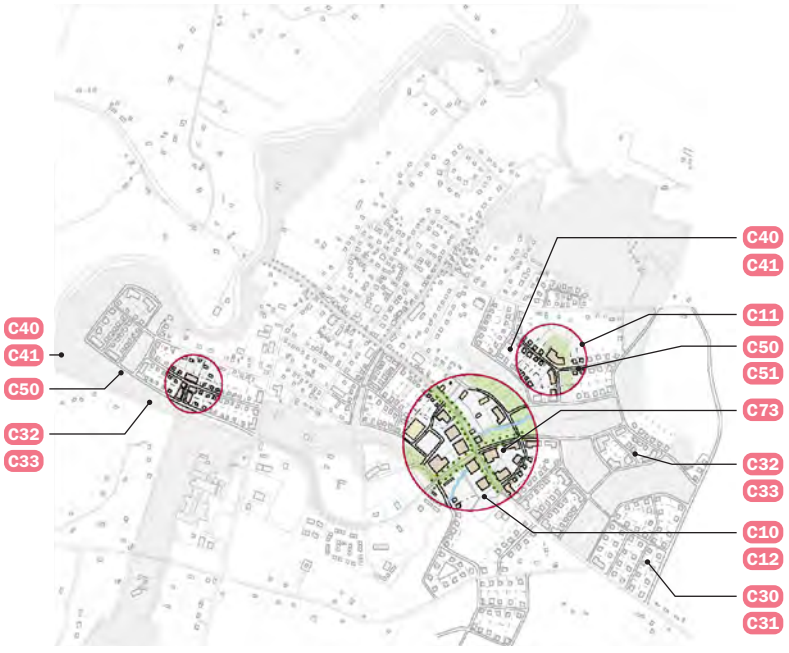

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Create pedestrian-oriented commercial areas

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E-A Detail Plan: New Commercial Center

Although this is not village center "main street" it is still organized according to the same principles of connectivity, green infrastructure and mixed-use, and many of the same design principles apply:

- All buildings have a positive relationship to the street with entrances facing the street. Buildings are sited along uniform set-back lines. Corner properties define the space of the intersection.
- The open spaces between the buildings are well landscaped in a coherent and coordinated way and link to the surrounding street network.
- Parking is organized into smaller interconnected lots behind retail and mixed-use buildings. Access to parking lots is rationed and cross-access agreements are promoted to minimize the number and size of driveways and minimize pedestrian-auto conflicts.
- On-street parking should be promoted where possible.
- Intersections are traffic-calmed and made pedestrian-friendly.
- Streetscape and sidewalk improvements make this a pedestrian-friendly environment.

Photo courtesy of Randall Arendt

E-B Detail Plan: New Neighborhood

- Clustering and open space strategies create a continuous green network and maintain the integrity of natural systems.
- Houses are oriented towards the open spaces so that the open spaces are a shared public amenity.
- A variety of housing types are provided to promote diversity and flexibility of use over time.
- Flexible controls over home occupations and live-work create mixed uses and a more complete neighborhood.
- Where the overall density can support it, neighborhood-scale retail is encouraged. Civic uses such as elementary schools or a neighborhood center help to create a complete community.
- Streets are treated as if they are the most important public space: the automobile-related features are minimized. The presence of the automobile is minimized to ensure a pedestrian environment; houses have a strong relationship to, and are oriented toward, the street.

Town of Ulster - Route 9W

Corridors

A commercial corridor is a road that is lined with auto-oriented commercial uses.

While there may be other kinds of activities within the surrounding area, the commercial corridor is almost entirely single use. With a few exceptions in small areas, the environment is built around the automobile, so much so that auto access is excessive in scale and creates a hostile environment for pedestrians. New development along the corridor is an opportunity to balance the needs of the car with those of pedestrians and to create new connections to surrounding areas.

Corridors Diagnostic:

- ☐ People refer to it as “the strip”.
- ☐ The uses are almost exclusively car-oriented commercial uses.
- ☐ Uses are separated by parking lots and driveways.
- ☐ There are very few connections from the corridor to the surrounding neighborhoods.
- ☐ It is not a walkable place.

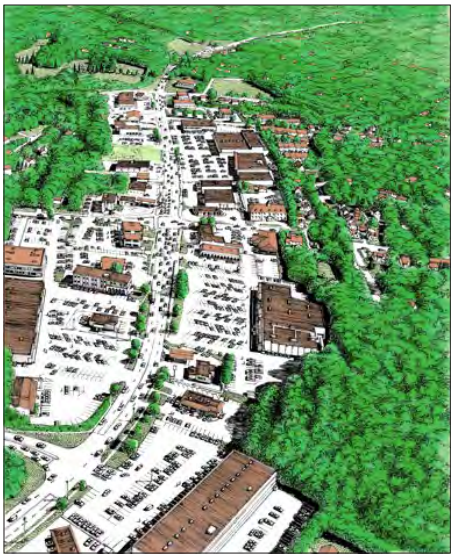
Modena

Town of Kingston - Route 28 Corridor

Stone Ridge

What to do:

- ☐ Through progressive redevelopment, buildings are sited uniformly along the corridor
- ☐ Pedestrian and automotive cross access between developments is mandated.
- ☐ Parking areas are reduced in scale either by redesigning them more efficiently or by allowing shared parking
- ☐ Where appropriate, connections are made to the surrounding neighbourhoods.
- ☐ Best-practice storm water management techniques are employed to manage runoff and create a landscaped appearance.



Existing Conditions

EXISTING

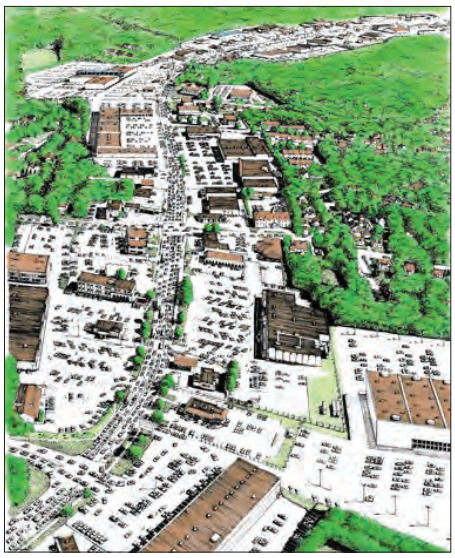
A **commercial corridor** is a road that is lined with auto-oriented commercial uses. While there may be other kinds of activities within the surrounding area, the commercial corridor is almost entirely single use. With a few exceptions in small areas, the environment is built around the automobile, so much so that auto access is excessive in scale and creates a hostile environment for pedestrians.

The predominance of franchise businesses and highway signage creates a "strip" appearance that lacks any sense of place or local character.

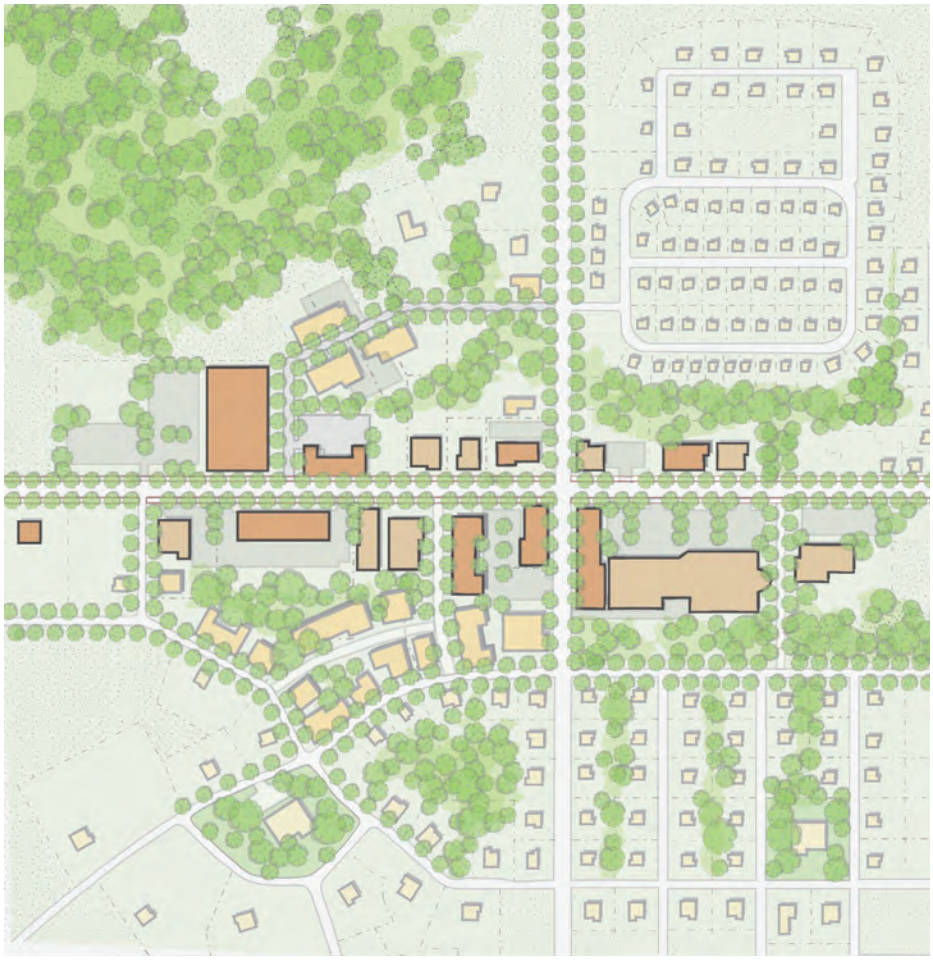
Excessively liberal zoning results in inefficient use of the land for huge expanses of parking. Over time a process in which successive generations of competing businesses cannibalize one another leads to disinvestment or abandonment.

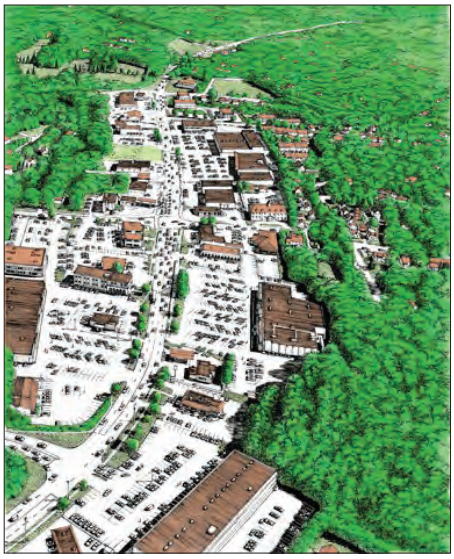
STANDARD DEVELOPMENT

- The corridor is not connected to the surrounding neighborhoods, undermining the ability to create a complete neighborhood and the ability for the retail businesses and residences to support one another as they would in a complete neighborhood.
- It is a completely auto-oriented environment. There is redundant and excessive access to each business from the arterial. Sidewalks and pedestrian accommodations are lacking. Oversized undifferentiated parking areas separate the buildings from the streets.
- Lack of connectivity in the street network exacerbates traffic, creating unnecessary car trips between destinations and further isolating the corridor from the surrounding neighborhoods.
- The underlying ecology is ignored: excessive paved areas drain directly into nearby streams and wetlands, mature trees and vegetation are cleared, streams and wetlands are compromised.
- Poorly managed signage and utilities create visual chaos and an unattractive "anywhere" appearance.



Conventional Development

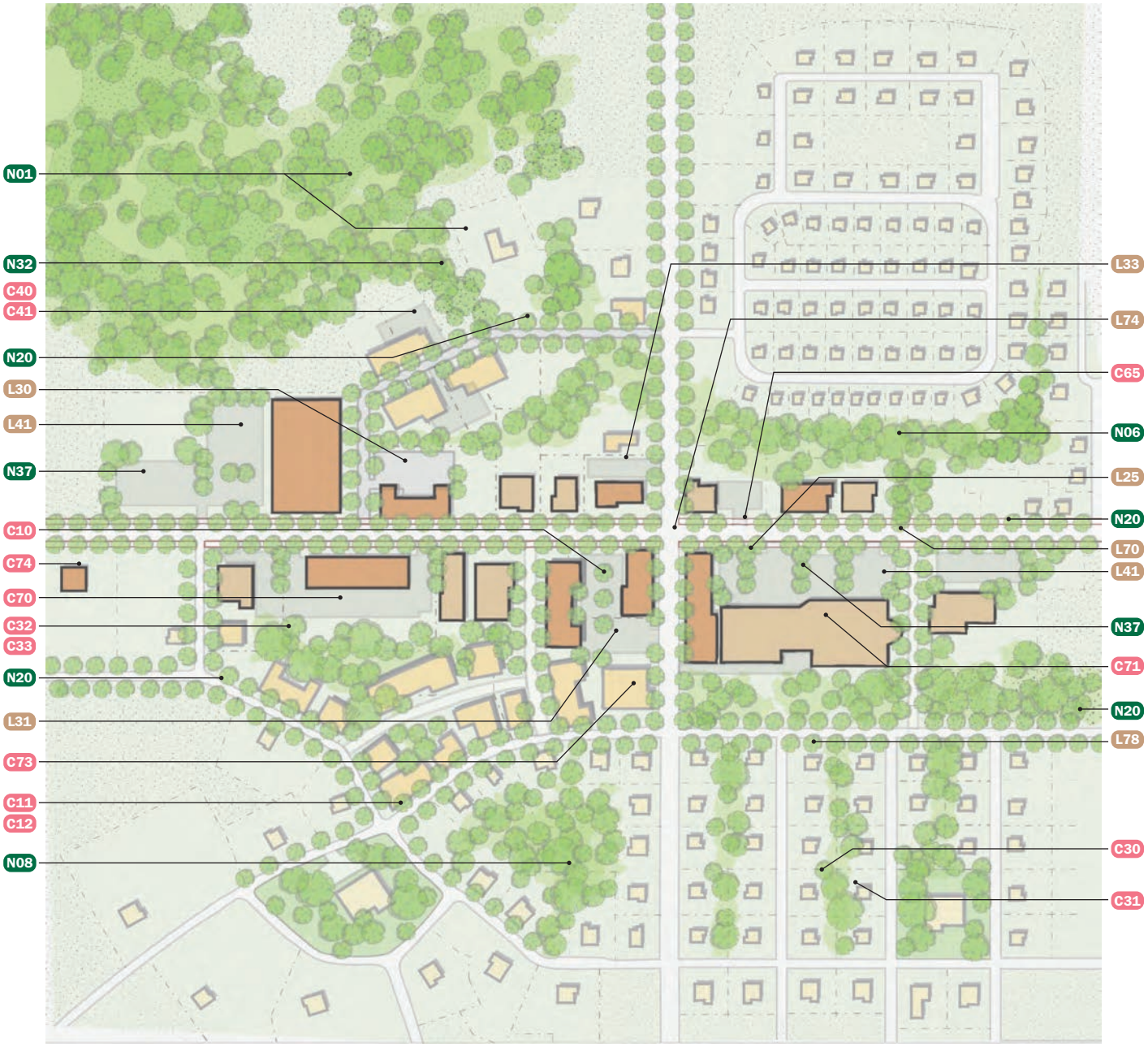




Preferred Development

PREFERRED DEVELOPMENT

- ☑ Through progressive redevelopment, buildings are sited uniformly along the corridor.
- ☑ Connections are made between parcels to minimize traffic on the commercial arterial.
- ☑ New through connections are made between the corridor and the surrounding neighborhoods.
- ☑ Urban forestry (street trees, new pocket parks) are used to create a continuous greensward, protecting natural systems and enabling a network of pedestrian connections between the corridor and the surrounding areas.
- ☑ Parking areas are reduced in scale either by redesigning them more efficiently or by allowing shared parking.
- ☑ Zoning allows a diverse mix of uses.
- ☑ The auto-corridor is reconceived as a shared pedestrian-oriented public space. While even a well-designed commercial corridor will not be a true "main street," a pedestrian environment is created. There are uniform streetscape standards for lighting, paving and landscaping; there is a complete network of sidewalks.
- ☑ Along important roads, there are uniform setback standards.
- ☑ Parking is on the sides of or behind buildings.



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Create the urban forest

- Landscape parks and plazas..... N31
- Create green streets..... N70 71 72

Create linked open spaces

- Link protected resource areas on individual parcels..... N20 47
- Create and link parks and greenways..... N31

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- Create resource–specific plans and regulations..... N40 41 42 80 81 82
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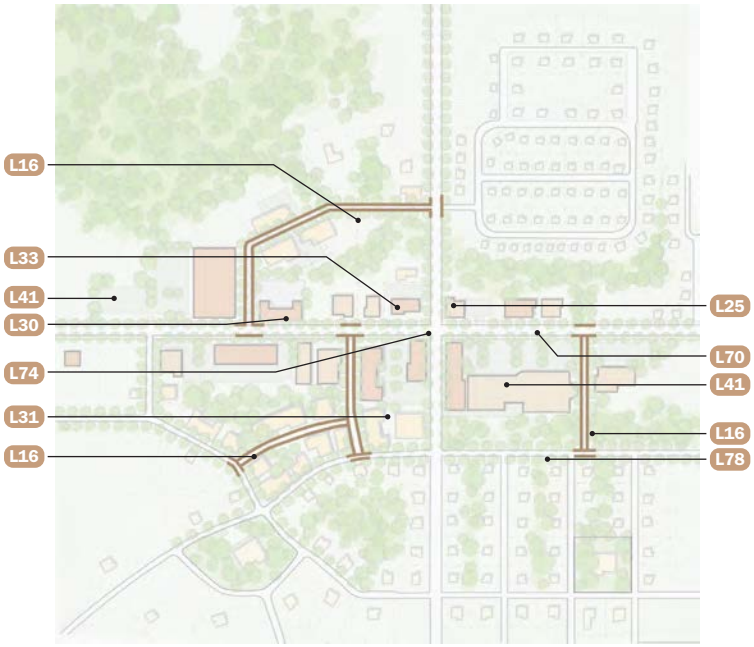

Links

Maximize connectivity

- Create a connected street network... L10 11 12 13 14
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- Create a trail network..... L90 94 95 96 98

Design streets for people

- Design for pedestrians and bicycles..... L50 51 52 53 L54 55 56 57
- Design beautiful streets..... L51 57

Manage the automobile

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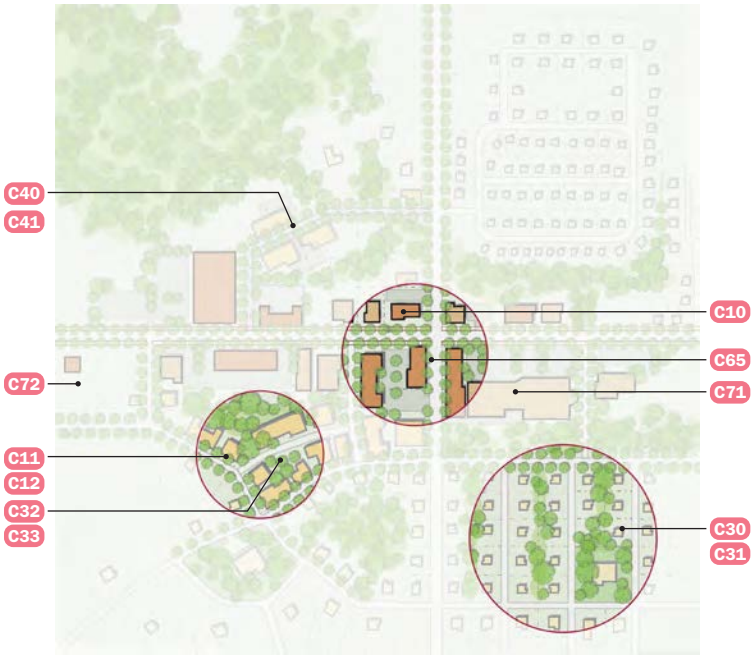


Communities

Create diversity of land use

- Integrate neighborhood civic uses... C20 21 22
- Create diversity of housing types..... C32 40 50
- Provide for flexible use/mixed use... C10 11 12

Create beautiful neighborhoods

- Orient buildings to streets..... C30 32 33 40 50 73 74
- Promote context-sensitive design..... C65 66 67 68 73

Create pedestrian-oriented commercial areas

- Promote mixed-use buildings..... C10 11 12
- Promote infill development..... C67 68
- Create "main street" environments..... C60 61 63 65 66 73

C0-C Existing conditions

- Redundant and excessive driveways
- Discontinuous sidewalks
- No pedestrian connections to building entrances
- Random building placement
- Parking between road and building entrances

C0-B Phase I: Access and streetscape improvements

- Eliminate redundant access
- Promote cross-access agreements to reduce driveways
- Develop new sidewalk and landscaping standards
- Create new sidewalks along roadway and between roadway and building entrances

C0-A Phase II: Redevelopment

- New buildings and additions are located along a uniform "build-to" line
- There are uniform landscape and streetscape standards for the setback zone
- Parking is located to the sides and backs of buildings
- On-street parking, where possible, helps calm traffic
- New car and pedestrian connections are made to surrounding neighborhoods

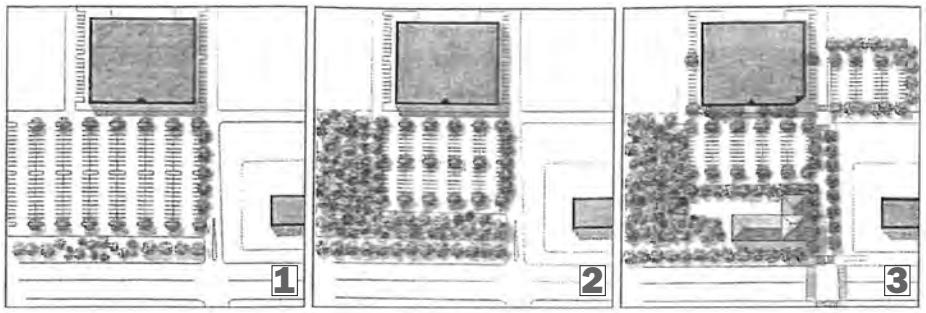
Photo simulation showing progressive redevelopment of commercial corridor

Existing condition

Public realm improvements: landscaping, sidewalks, lighting, reduced pavement width.

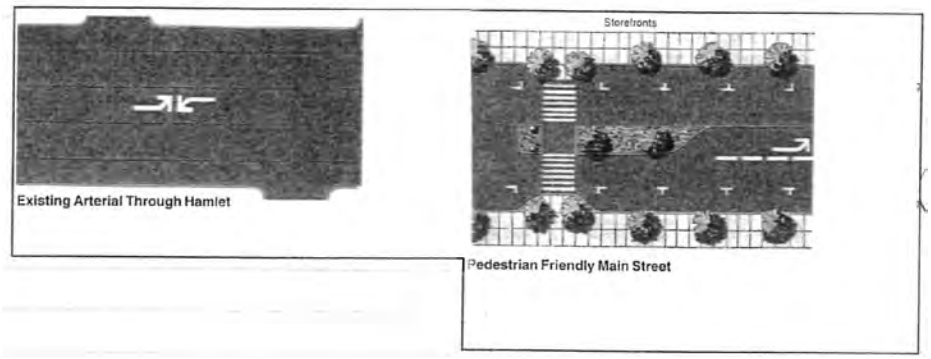
Images courtesy of New Jersey Office of State Planning

Sidewalk-oriented development



C020 Parking lot retrofit

1. Parking area for a typical suburban 50,000sf store is determined by high ratios such as 5 per 1000 sf, large 10' by 20' stalls and wide 25' aisles.
2. Total area for parking reduced by lowering ratio to 4 per 1000 sf, 9' by 18' stalls and 24' aisles. This leaves space for enhanced landscaping and pedestrian improvements.
3. New sidewalk-oriented development is possible by breaking the lot up into smaller areas (40 spaces) and relocating some of the smaller parking areas to the sides or backs of buildings. New sidewalk-oriented development is now possible along the corridor frontage.



C021 Arterial retrofit

Conversion of an auto-oriented arterial into a pedestrian-friendly "main street":

- 12' zone for sidewalk treatments and shade trees creates a walking environment.
- Well-marked pedestrian crossing with sidewalk "bump-outs" reduces crossing distance.
- 8' striped on-street parking zone reduces off-street parking lot size to enable redevelopment.
- 11' wide travel lanes.
- Turning lane zone is landscaped where possible and creates a refuge area at pedestrian crossing.


Before


After

Courtesy of Michael Ronkin


Courtesy of Project for Public Spaces


Courtesy of Project for Public Spaces

High Falls

Crossroads

Crossroads are places that already have some of the ingredients of a new center but at lower densities:

perhaps there are some auto-oriented commercial uses; often there may be a fire station, town hall or other civic use; it is surrounded by developable lands that are suitable for future walkable neighborhoods. This area is already a destination for the local community. New development at the crossroads has the potential to complete the mix of land uses to create a new compact, mixed-use place with a distinct identity for the community.

Crossroads Diagnostic:

- ☐ It is the intersection of two important roads.
- ☐ It is a local destination for convenience shopping.
- ☐ It is not intensively developed—buildings are not close enough to each other to make a compact walkable place and existing buildings are surrounded primarily by undeveloped land.
- ☐ The overall land use pattern is unclear—the uses are primarily auto-oriented commercial uses, but there may be some residential uses or some civic uses such as a post office or fire station.
- ☐ Infrastructure can support intensification of the Crossroads intersection and can also support compact neighborhoods around the new center.

Tillson

Walker Valley

Glasco

Intersection of NYS Route 208 and 44/55

Esopus

What to do:

- [ ] Conservation subdivision strategies create compact, well-connected neighbourhoods with a diverse range of housing types
- [ ] Natural features are linked to create a continuous greensward through the neighborhood and connecting to surrounding natural areas
- [ ] Parking is organized into multiple, smaller interconnected lots behind the retail and mixed-use buildings
- [ ] Design guidelines create a coherent appearance at the crossroads

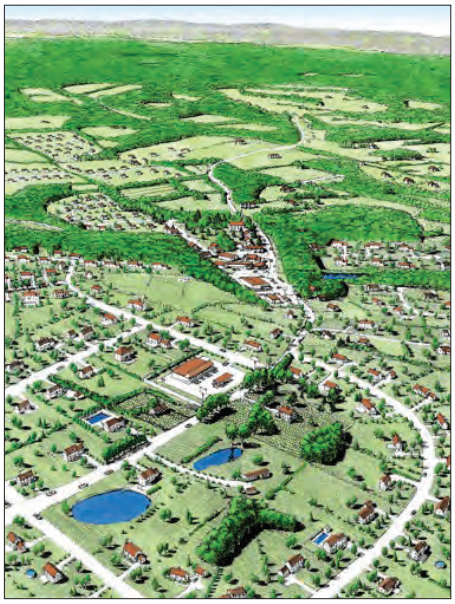
EXISTING

Crossroads are places that already have some of the ingredients of a new center but at lower densities: perhaps there are some auto-oriented commercial uses; often there may be a fire station, town hall or other civic use; it is surrounded by developable lands that are suitable for future walkable neighborhoods.

Existing Conditions

STANDARD DEVELOPMENT

- Commercial uses are auto-oriented and site planning ignores the pedestrian experience.
- Buildings are not sited in a coherent way and are not oriented to the street.
- There is little connectivity between the commercial area and surrounding residential developments.
- Environmental features are ignored or compromised.
- There is little diversity in the land use pattern. Activities tend to be segregated.
- The land use pattern is one in which there are only a few land use types in segregated, single-purpose areas.



Conventional Development

Preferred Development

PREFERRED DEVELOPMENT

- ☑ Land uses include a mix of activities that together comprise a complete community with a distinctive identity: it includes a variety of housing types, institutional uses such as schools, daycare or community centers, parks and public open spaces.
- ☑ Environmental features are preserved and enhanced.
- ☑ Parking is organized into multiple, smaller interconnected lots behind the retail and mixed-use buildings.
- ☑ Design guidelines give the streets and buildings some visual coherence.
- ☑ Adjacent residential areas are planned and designed according to best practice principles for complete, sustainable neighborhoods: a street and block network with a high degree of connectivity; diversity of housing types; compact development patterns; protection and support of underlying natural systems.
- ☑ Buildings in the commercial area are planned and designed according to best practice principles for commercial corridors: ample accommodation for the pedestrian experience; high level of connectivity to surrounding areas; parking behind the commercial area and to the sides of buildings; buildings oriented toward the street; signage and other elements organized to create a coherent street front.

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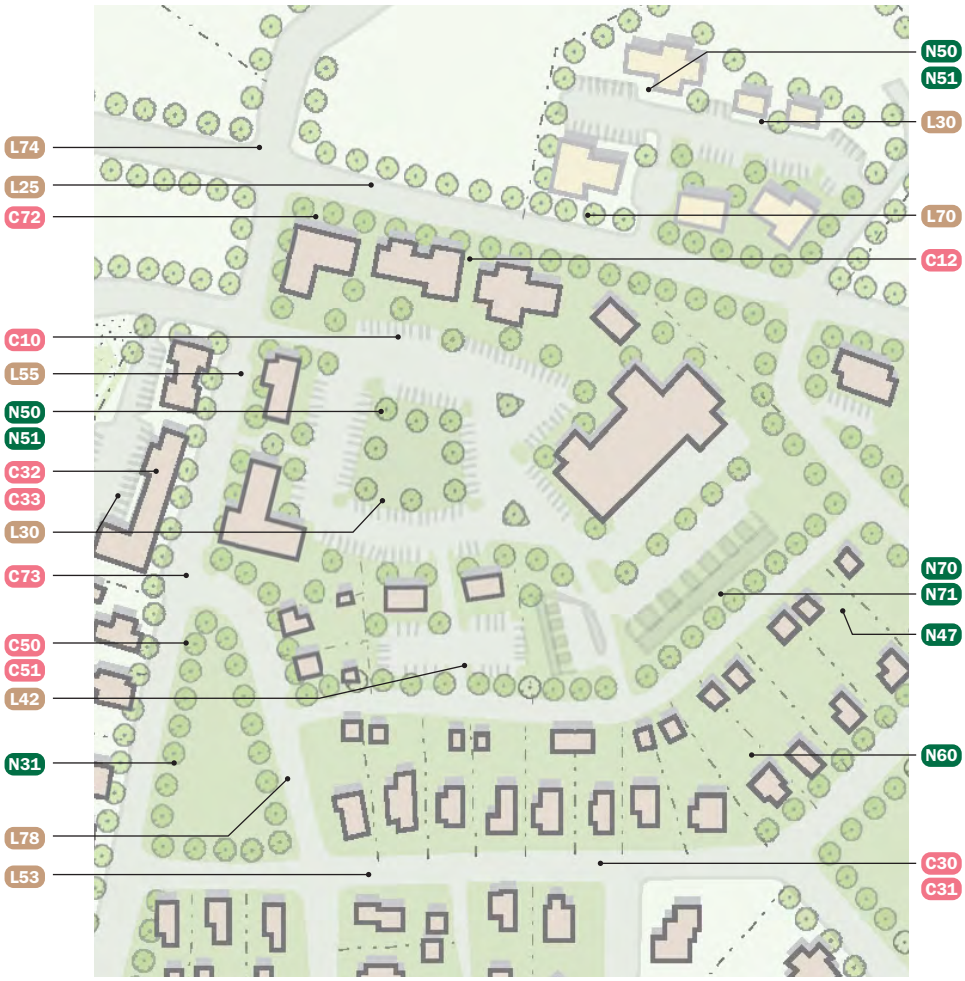


Courtesy of Randall Arendt

CR-A New Rural Commercial District

A new rural commercial center is a looser aggregation of small and medium-sized buildings than the small "downtown" where zero lot line buildings line "main streets." It is still organized according to the same principles of connectivity, green infrastructure and mixed-use and many of the same design principles apply:

- Parking is organized into smaller interconnected lots behind retail and mixed-use buildings.
- In some areas on-street parking may be appropriate.
- Pedestrian connections may be a combination of sidewalks and winding paths which create a comprehensive pedestrian experience.
- Intersections are traffic-calmed and made pedestrian-friendly.
- The open spaces between the buildings are well landscaped in a coherent and coordinated way and link to the surrounding green network.
- Buildings are sited in different ways and there are no uniform set-backs, but all buildings have a positive relationship to the street with entrances clearly facing the street.
- Design guidelines disallow highway-type signage in favor of neighborhood-scale signage.

Lloyd - Hudson Valley Wine Village

New Neighborhoods

New neighborhoods are places that are largely undeveloped,

but are still appropriate for new development. These are mainly residential places with a variety of housing sizes. But to become "complete communities" it is important to add some amount of neighborhood retail and services, opportunities for live-work space, and civic uses. Although these are primarily residential areas, the objective is to create a complete community that includes a variety of housing types and some mix of commercial and institutional uses. New development here can capture development that would otherwise go to higher value landscapes such as productive farmlands and critical watersheds.

New Neighborhoods Diagnostic:

- ☐ There may already be some existing houses scattered about on larger lots.
- ☐ It is mostly un-built countryside.
- ☐ Infrastructure can support intensification.
- ☐ It can be developed without compromising natural systems or visual qualities of the landscape.

Rifton

Ohioville

Wallkill - Borden Farms Area

Kingston - Hudson Landing

What to do:

- ☐ Clustering and open space strategies between subdivisions are coordinated so that a continuous green network maintains the integrity of natural systems
- ☐ There are multiple points of connectivity between neighbourhoods and the arterial network
- ☐ Where the overall density can support it, walkable, neighbourhood-scale retail is encouraged
- ☐ There is a diverse range of housing types

Lloyd - North of Route 299 Near Chodikee Lake

Existing Conditions

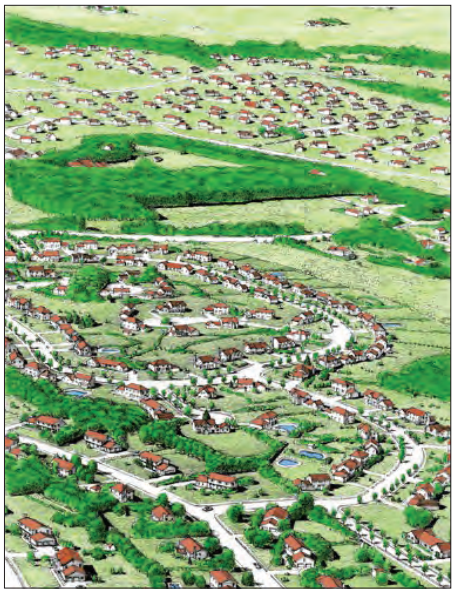
EXISTING

New neighborhoods are places that are largely undeveloped, but are still appropriate for new development. These are mainly residential places with a variety of housing size. But to become "complete communities" it is important to add some amount of neighborhood retail and services, opportunities for live-work space, and civic uses.

Inevitably there will be new appropriate neighborhoods in the landscape, located in places based on the larger regional, Smart Growth scale analysis. Although a fully-formed new "center" is not contemplated, to be "complete communities" some new mix of uses and housing types is necessary.

STANDARD DEVELOPMENT

- There are no commercial or institutional uses that would make this place a complete community.
- There is little or no diversity of housing types.
- Properties are developed into stand-alone, cul-de-sac subdivisions that do not connect to each other or relate to the street.
- Properties are developed without regard to environmental resources: stands of mature trees are cleared, steep slopes are compromised, properties impinge on water bodies.



Typical Development

Preferred Development

PREFERRED DEVELOPMENT

- ☑ Clustering and open space strategies between subdivisions are coordinated so that a continuous green network maintains the integrity of natural systems.
- ☑ Houses are oriented towards the green network so that it is a shared amenity, not privatized.
- ☑ A variety of housing types is provided to promote diversity and flexibility of use over time.
- ☑ The street network within each neighborhood creates a high level of connectivity among and between neighbors and destinations.
- ☑ There are multiple points of connectivity between the neighborhood and the arterial network. New through-streets between and through neighborhoods increase the connectivity within the larger network of arterial roads.
- ☑ Flexible controls over home occupations and live-work create mixed use and a more complete neighborhood.
- ☑ Where the overall density of a group of neighborhoods can support it, neighborhood-scale retail is encouraged. Civic uses such as elementary schools or a neighborhood center help create a complete community.
- ☑ Each neighborhood and the neighborhoods collectively, respond to the underlying "green infrastructure" of the site: streams and wetlands are buffered; steep slopes are not built upon; mature stands of trees and vegetation are preserved; passive storm water management techniques are used including bio swales, storm water harvesting; impervious surfaces are minimized.
- ☑ Streets are treated as if they are the most important public spaces. The presence of the automobile is minimized to ensure a pedestrian environment; houses have a strong relationship to the street and are oriented toward the street.

Preferred Development Plan, Details

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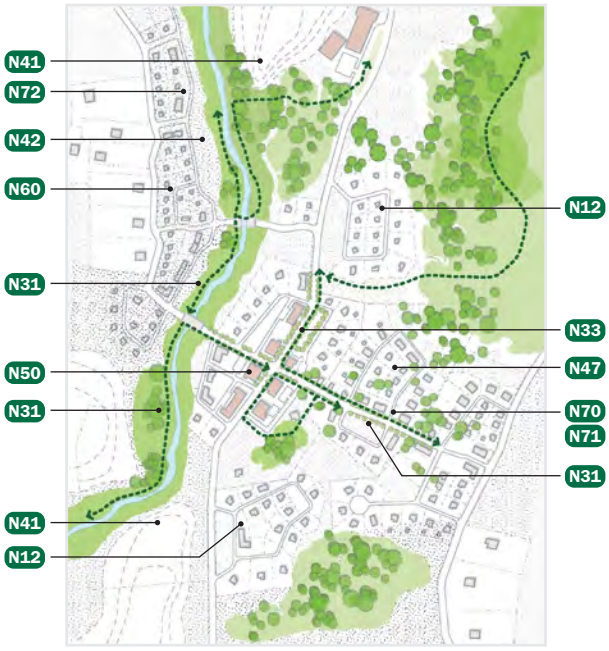
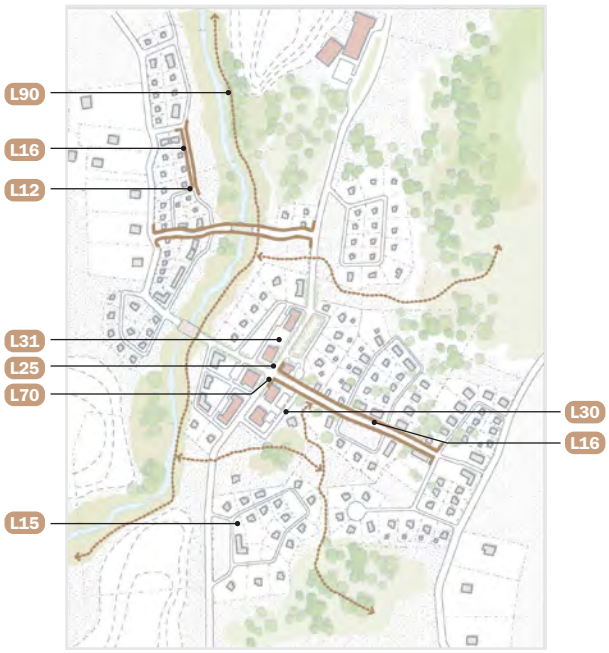
See detail plan NN-A

Preferred Development





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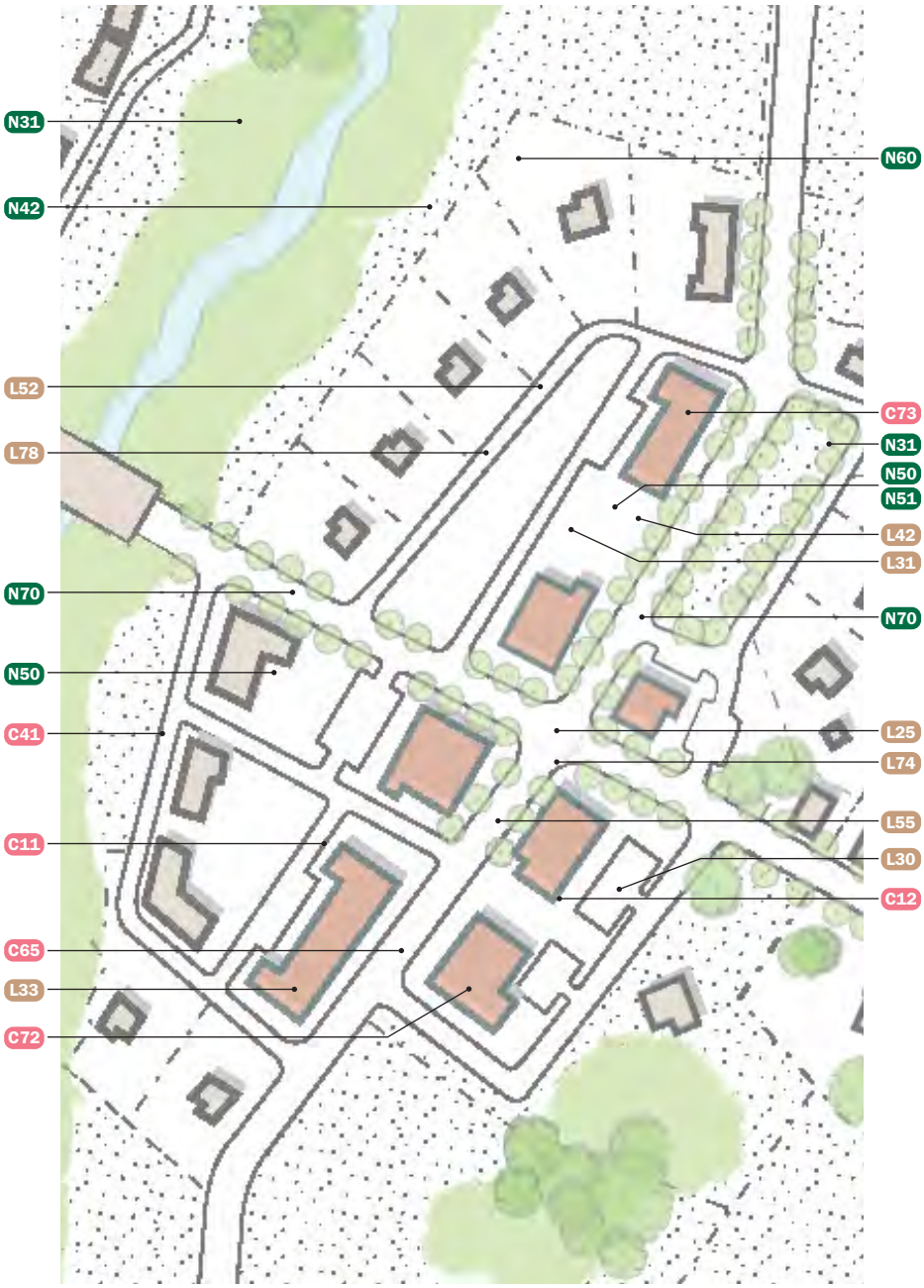
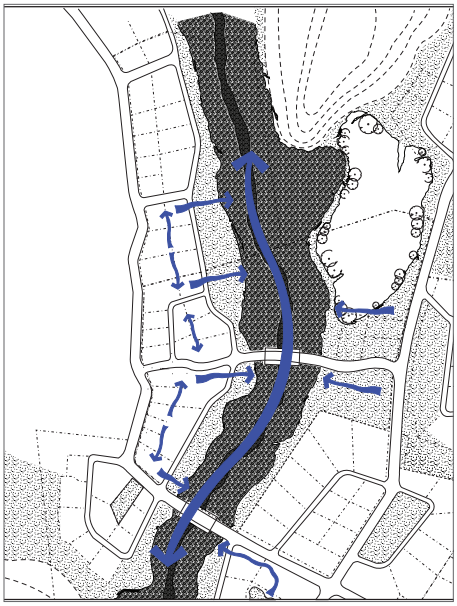


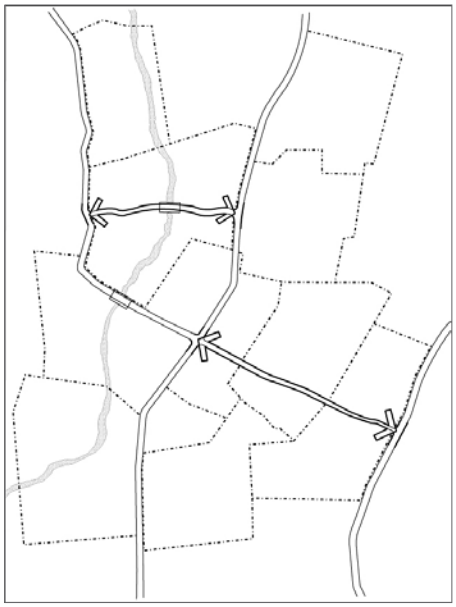
NN-A New Neighborhood Center

- Parking is organized into smaller interconnected lots behind retail and mixed-use buildings.
- Sidewalks create a comprehensive pedestrian experience within the neighborhood center and from the center to surrounding neighborhoods or greenways.
- The open spaces between the buildings are well landscaped in a coherent and coordinated way and link to the surrounding green network.
- All buildings have a positive relationship to the street with entrances clearly facing the street.
- A variety of residential building types create housing diversity.
- Design guidelines disallow highway-type signage.



NN10 Direct the flow

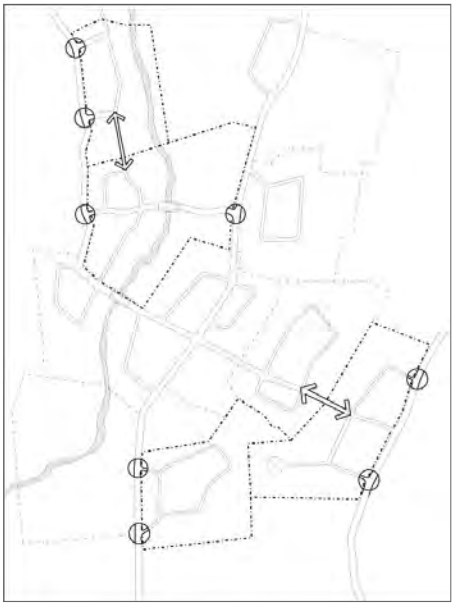
Properties are landscaped according to best-practice storm water management principles: impervious surfaces are minimized; sites are graded so that most of the water seeps down into the interflow where it is cleaned before joining the stream corridor.



NN11 Connectivity (1)

New connecting roads

In strategic locations, new connecting streets between existing roads are created by requiring that individual developments connect to each other. This strategy can increase the overall connectivity of the public street network. While states, counties and municipalities may build some of the connecting roads over time, it is possible to have some new connecting streets built with the resources of the developer. For this strategy to work, the road must be mapped across the properties and a uniform set of design standards are required to insure that the individual sections can be linked to create a single road.



NN12 Connectivity (2)

Link developments

Street network connectivity is increased by requiring multiple points of access between new neighborhoods and public streets. This distributes traffic impacts during peak periods and increases pedestrian and bicycle connectivity. Wherever possible, connections are required between neighborhoods.

Accord

Rural

Landscapes are places where the historic character of the land is still intact.

Because human habitation is sparse, natural features such as forests, rolling hills, lakes and streams predominate. What little development has taken place is at very low densities and is primarily in the form of farms and historic homesteads. Rural roads and scenic byways are an essential part of the experience of these places. Development in these areas is extremely limited and any new development needs to be exceptionally sensitive to the character of the landscape and the integrity of natural systems.

Rural Diagnostic:

- ☐ Development is sparse.
- ☐ Roads have a scenic character, often narrow and winding with little traffic.
- ☐ The character of the landscape predominates.
- ☐ There is almost no car-oriented commercial development

Route 213, High Falls

West on Route 299 towards Shawangunk Ridge-

Bruyns Turnpike

Route 52

What to do:

- ☐ Development patterns respond to the existing natural systems. Natural features are conserved to the greatest extent possible.
- ☐ Storm water is managed using “low impact development” (LID) strategies. Impervious surfaces are minimized and the existing hydrology of the site is maintained.
- ☐ Roads are rural in character. They are narrow and use passive drainage techniques such as swales.
- ☐ A trail network enables access to the open spaces and natural areas.

Samsonville

EXISTING

Landscapes are places where the historic character of the land is still intact. Because human habitation is sparse, natural features such as forests, rolling hills, lakes and streams predominate. What little development has taken place is at very low densities and is primarily in the form of farms and historic homesteads. Rural roads and scenic byways are an essential part of the experience of these places. Development in these areas is extremely limited and any new development needs to be exceptionally sensitive to the character of the landscape and the integrity of natural systems.

Existing conditions

STANDARD DEVELOPMENT

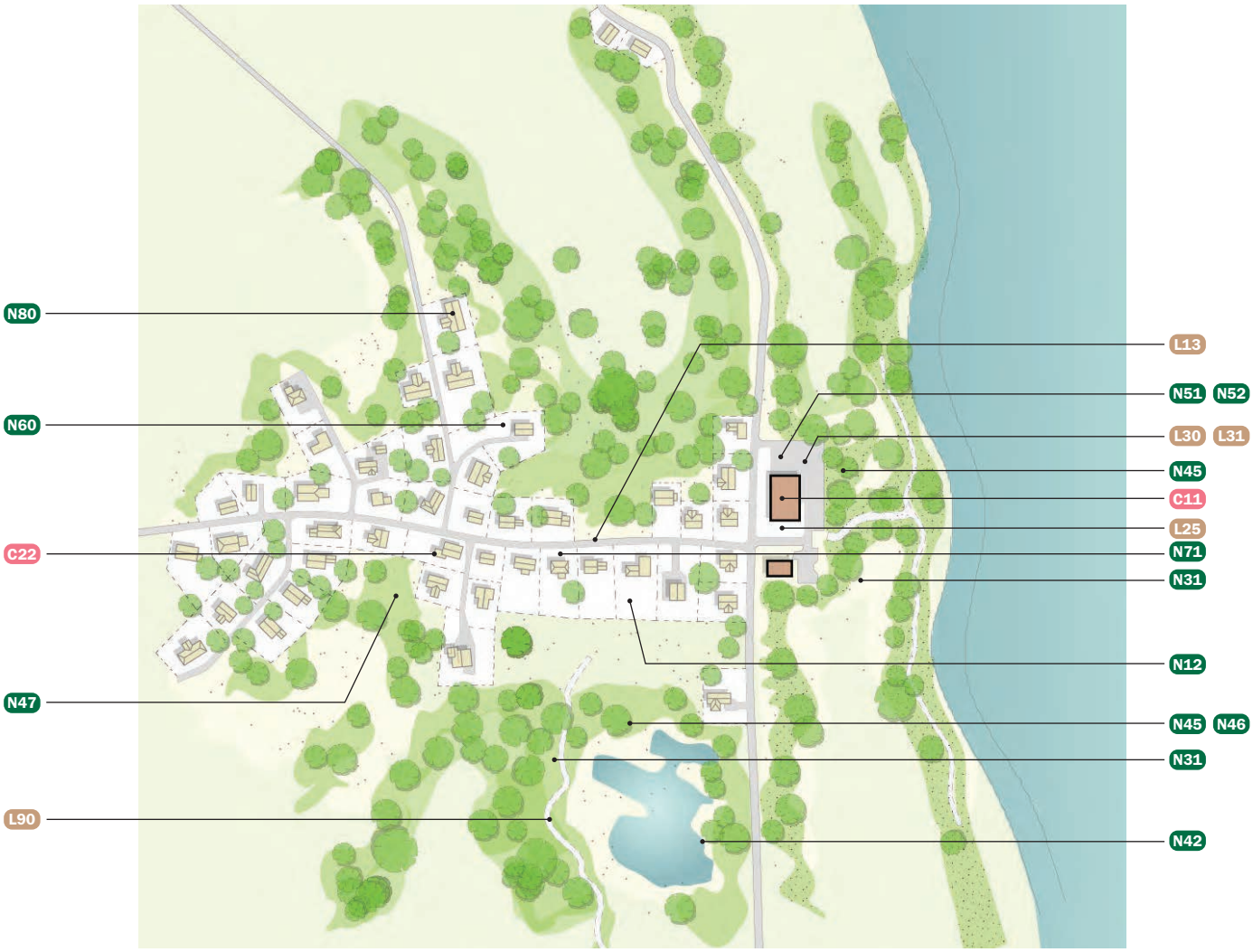
- Development is not responsive to natural systems. Natural features such as stands of mature trees and wetlands are not conserved.
- Water resources are compromised development and by changes to hydrology of the landscape. Storm water management uses standard suburban high-impact techniques and the amount of impervious surface, both from roads and individual properties, is excessive..
- Access roads are typical suburban subdivision road types that are excessively wide and do not use low-impact strategies for drainage.
- Houses are out of context both in terms of size and design. Strip-type commercial development is disconnected and out of character with the context.

Typical Development

PREFERRED DEVELOPMENT

- ☑ Development patterns respond to the existing natural systems. Natural features are conserved to the greatest extent possible.
- ☑ Storm water is managed using "low impact development" (LID) strategies. Impervious surfaces are minimized and the existing hydrology of the site is maintained. Water resources, such as streams and wetlands are conserved and enhanced
- ☑ Roads are rural in character. They are narrow and use passive drainage techniques such as swales.
- ☑ A trail network enables access to the open spaces and natural areas.

Preferred Development



Preferred Development Plan, Details

- ☑ Development patterns respond to the existing natural systems. Natural features are conserved to the greatest extent possible.
- ☑ Storm water is managed using "low impact development" (LID) strategies. Impervious surfaces are minimized and the existing hydrology of the site is maintained. Water resources, such as streams and wetlands are conserved and enhanced
- ☑ Roads are rural in character. They are narrow and use passive drainage techniques such as swales.
- ☑ A trail network enables access to the open spaces and natural areas.

Preferred Development

Nature

Create the urban forest

- Landscape parks and plazas..... N06
- Create green streets..... N05 20 21 23 24 25

Create linked open spaces

- Link protected resource areas on individual parcels..... N08 09
- Create and link parks and greenways..... N06

Protect natural and scenic resources

- Create resource–specific plans and regulations..... N02 03 04
- Mandate conservation subdivisions..... N01
- Protect watersheds and freshwater wetlands..... N02 10 20 32 33 34 37
- Protect farmlands..... N01

Links

Maximize connectivity

- Create a connected street network... L10 11 12 13
- Create new roads and connections into and between developments..... L15 16
- Create a trail network..... L90 92 93 94 95 96 98

Design streets for people

- Design for pedestrians and bicycles..... L50 51 52 53 L54 55 56 57
- Design beautiful streets..... L51 57

Manage the automobile

- Deal with parking creatively..... L31 32 33 40 41 42
- Accommodate transit..... L25
- Traffic-calm roads..... L70 74 76 78

Communities

Create diversity of land use

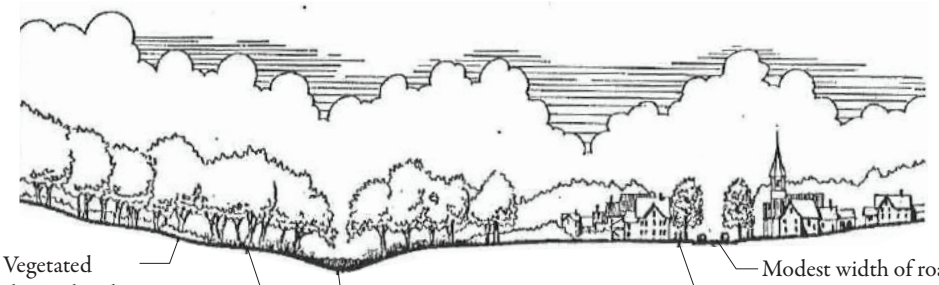
- Integrate neighborhood civic uses... C20 21 22
- Create diversity of housing types..... C32 40 50
- Provide for flexible use/mixed use... C10 11 12

Create beautiful neighborhoods

- Orient buildings to streets..... C30 32 33 40 50 73 74
- Promote context-sensitive design..... C65 66 67 68 73

Create pedestrian-oriented commercial areas

- Promote mixed-use buildings..... C10 11 12
- Promote infill development..... C67 68
- Create "main street" environments..... C60 61 63 66 73



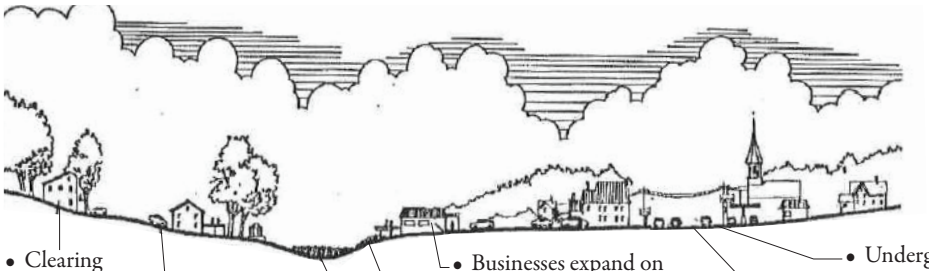
Vegetated slopes absorb and filter run-off and release it slowly to groundwater

- Tree- shaded stream with gravel bottom; cold water at a consistent level makes ideal trout habitat
- Underdeveloped floodplain stores runoff; wetland vegetation filters silt and nutrients, protects banks from erosion

Modest width of road limits volume of runoff

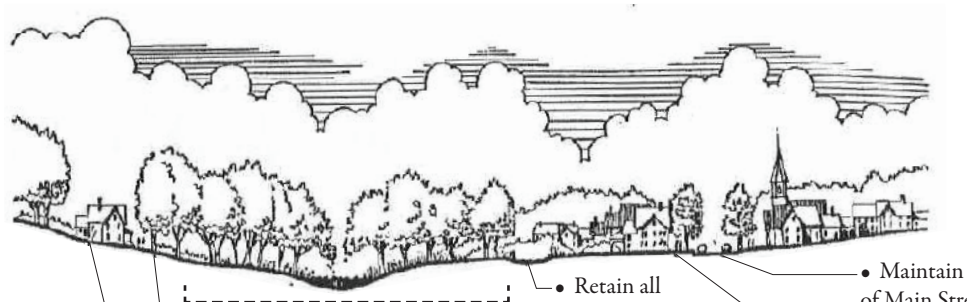
Lawns and tree belts absorb and filter runoff

N42 Section through existing corridor



- Clearing for new home sites; boosts runoff as lawns replace forests; sedimentation and pollution persist
- Surface runoff from roads and driveways carries oily pollutants and heavy metals into stream. Underground, septic system load groundwater with nutrients.
- Businesses expand on stream side, clearing for views and parking
- Land filling and loss of vegetation increase size and frequency of floods. Increase in flow requires rip-rapping of stream banks to prevent erosion
- Tree cutting increases water temperature. Nutrients from fertilizer and septic effluent use up available oxygen. Water levels fluctuate as groundwater subsides and flooding increases. Trout habitat vanishes.
- Underground gas tanks pose potential danger for leaks
- Highway widening and new parking lots and driveways eliminate trees and lawns; volume and velocity of runoff increases

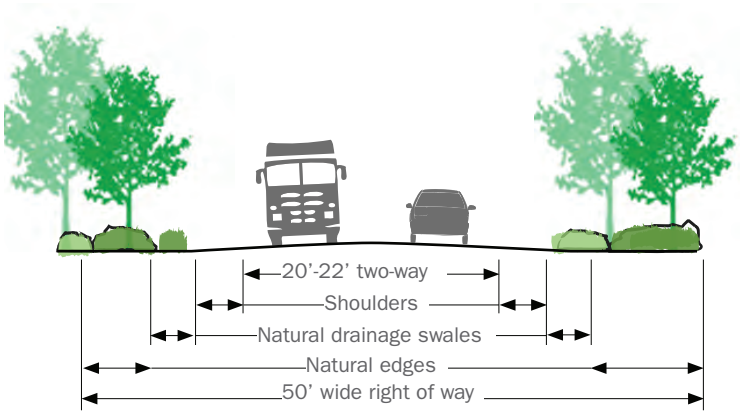
N42 Section through existing corridor- typical zoning



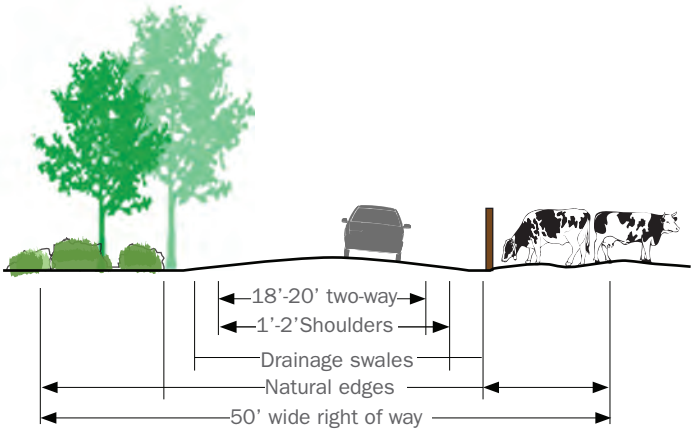
- Septic system placed beyond buffer zone to allow for minimum possible treatment of wastewater before contact with surface water sources
- Allow new homes at low densities outside of village. Site plan controls keep clearing and grading to a minimum. Collect runoff from site
- Retain all stormwater runoff on site and deal using constructed pond/ wetland systems
- Create buffer zones along stream banks within which any development is strictly regulated. Potential use as greenway park for recreation as well as wildlife habitat.
- Maintain historic width of Main Streets and enhance pedestrian areas
- Accommodate growth of village through infill careful expansion at like densities. Compact development patterns allow efficient community wastewater treatment to replace individual septic systems

N42 Section through existing corridor- buffer zone protection

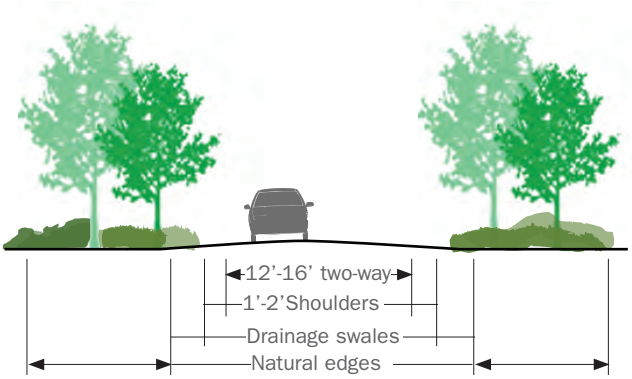
Rural Collector Road
22 feet wide plus shoulder



Rural Access Road
16 feet wide



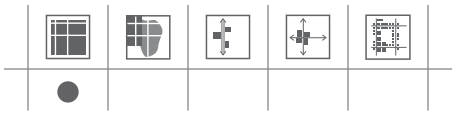
Private Road
13 feet wide



	DOWNTOWNS	EDGES	CORRIDORS	CROSSROADS	NEW NEIGHBORHOODS
Lumberyard Condominiums	●				
Summer St. Development	●				
Cranford Crossing	●				
Livingston Town Center			○	●	◐
Tuckahoe Infill Redevelopment	●				
Franklin Square	●				
Metuchen, New Jersey (office)	●				
Goshen, New York	●				○
Irasville District		●	◐		○
Rockville Town Square	◐		●		
Excelsior and Grand			●		
First Street			●		
Route 9	○		●		
Washington Town Center			◐	●	○
LaGrange Town Center			○	●	◐
Warwick Grove			○		●
Old York Village					●
Farmview					●
Weatherstone				◐	●

LEGEND ● Directly related ◐ Partially related ○ Indirectly related

Lumberyard Condominiums



LOCATION: Collingswood Borough, New Jersey
SITE: 3.6-acre site, former lumberyard near downtown commuter station
PROGRAM: Phase 1: 41 apartments, 10 retail units. Phase 2: 80 additional apartments, 11 additional retail units.
DEVELOPERS: The Borough of Collingswood

Links

The project is a transit-supportive development about 1/3 mile from the commuter station. Wide sidewalks, on-street parking and sidewalk bump-outs help create a comfortable pedestrian environment. Most of the parking is in an underground structure.

Communities

The buildings' carefully-chosen design and materials integrate the new buildings into the existing architecture and traditional urban fabric. This project is a mixed use project that provides a diversity of housing types as well as retail uses to support the existing downtown. The buildings relate to the streets in ways that reinforce their public space qualities. An outdoor plaza is planned.

Tools and Actions

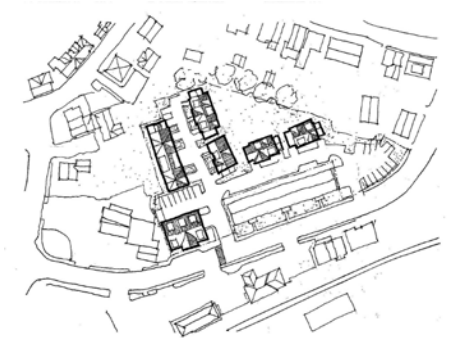
The Lumberyard Condominium is part of a downtown revitalization planning process that began in the 1970s and 1980s to combat the decline of Collingswood's commercial and residential center. In addition to public investments in streetscape renovations and building rehabilitation, the Borough took the key early step of obtaining state grants to study transit-oriented development opportunities in Collingswood and neighboring communities along the PATCO rail line.

Recommendations from this study fed into the borough's master plan, which led to the designation of redevelopment areas under New Jersey state redevelopment statutes. Collingswood created redevelopment area plans for these designated areas, which override existing zoning and give the borough broad powers to redevelop the area. Municipal boards and citizen stakeholders were actively involved in the planning and design process.

Google Earth

Summer St. Development

LOCATION: Manchester-by-the-Sea, Massachusetts
SITE: Underutilized 2-acre site near downtown commuter station
PROGRAM: Phase 1: Rehabilitation of 21-unit, 3-story apt. building, 17 long-term affordable units. Phase 2: 18 new Energy Star Qualified condominiums and townhouses, 5 designated for income-qualified first-time homebuyers, and 3 for-sale retail units.
DEVELOPERS: Manchester Affordable Housing Corporation and the Manchester Housing Authority



Nature

New buildings are Energy Star Qualified.

Links

The project is a transit-supportive development within 0.2 miles of the commuter station. A minimum amount of parking is provided and this is located behind the buildings. The parking in the interior of the block is broken up into small increments to facilitate walking through the site.

Communities

This project is a mixed use project that provides a diversity of housing types as well as retail uses to support the existing downtown. The buildings relate to the streets in ways that reinforce their public space qualities.

Tools and Actions

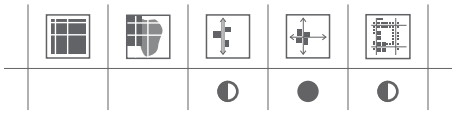
First, part of the Massachusetts' Comprehensive Permit Act allows developers of affordable housing to bypass certain aspects of municipal zoning and other requirements, such as maximum densities, if less than 10% of the municipality's housing qualifies as affordable and if at least 20-25% of units in the development have long-term affordability requirements.

Second, collaboration with a variety of nonprofit, public and private partners enabled the project to obtain the funding, financing and technical expertise it needed to be fiscally sound. For example, the Massachusetts Housing Partnership (MHP) provided technical assistance funding to hire Affirmative Investments, Inc. to put together a variety of public and private funding sources, including a 4% tax credit with tax exempt bond structure for the rehabilitation and a construction loan based on ownership and commercial sales projections for the new construction.

Finally, the project was conceived and implemented through a public-private collaboration between the lead developers, the Massachusetts Housing Partnership, the local housing authority and town leaders. This collaboration also facilitated the difficult negotiation to purchase the site, at market rate, from its private owner.

Courtesy of Google Earth

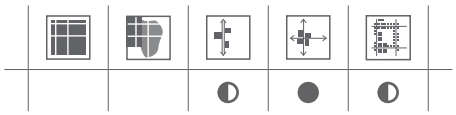
Cranford Crossing



LOCATION: Cranford, New Jersey
SITE: Former sites of municipal surface parking lot and a drive-through bank; 1 block from NJTransit train station
PROGRAM: 22,000 sq. ft. of ground-floor retail, 50 apartments, 310-space municipal parking garage for residents, commuters & shoppers
DEVELOPERS: Morgan Properties

For decades Cranford has been committed to creating and maintaining high-quality downtown. It is a state-designated transit village and has a Special Improvement District (similar to a business improvement district) and a Downtown Management Corporation to oversee its economic development efforts. In 1998 Cranford wrote a redevelopment area plan for the properties that would become Cranford Crossing. This plan gave the township the power to work closely with private developers to ensure that the project adhered to high design standards and aligned with community needs. Political support for the project and a 1 1/2-year public engagement process were essential to gaining community support for the redevelopment area designation. Officials believe this project spurred additional development and renovation projects in the downtown.

Livingston Town Center

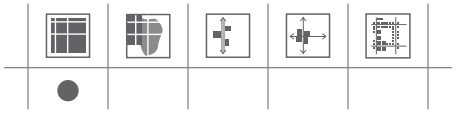


LOCATION: Livingston, New Jersey
SITE: 14 acres–former site of shopping plaza & undeveloped land
PROGRAM: 50,000 sq. ft. retail, 20,000 sq. ft. office, 233-car garage, 24 condominium apartments, 73 townhomes, ring of single-family detached homes
DEVELOPERS: Eastman Management Corporation, Jacobs Enterprises, Roseland Property Company

Livingston's business district stretched along a 3-mile span with no downtown, pedestrian traffic or community focal point. The desire for a town center came out of a community visioning process, and the site envisioned for the town center was a deteriorating shopping plaza. In 2000 local officials declared the plaza site an area in need of redevelopment. After legal disputes with the plaza owners, the township and owners reached an agreement in 2002 for a redevelopment plan and developer group. They also increased the project size beyond the plaza to also include the surrounding undeveloped lands.

The mixed-use project contains 2- to 4-story red brick buildings matching the township's Federal-style municipal building. To address neighbors' concerns about increased traffic, developers widened roads near the project.

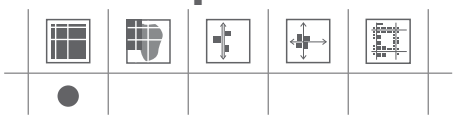
Tuckahoe Infill Redevelopment



LOCATION: Tuckahoe, New York
SITE: Three 0.5 acre sites along Main Street
PROGRAM: Townhouses and small apartments over retail and office

This is a significant redevelopment project for a small village in Westchester County. It occupies several blocks along Main Street which is the principal commercial corridor linking the village to the Metro North train station. The massing is animated by variations in the rooflines and changes in the setbacks that break down the scale of the small apartment buildings. The parking is located behind the buildings and is accessed from the cross streets. Several small passageways penetrate the buildings at the ground floor, linking the parking areas to the street. All of the buildings have a strong orientation to the sidewalk and the ground floors are either entrances to the buildings or retail and office store fronts.

Franklin Square



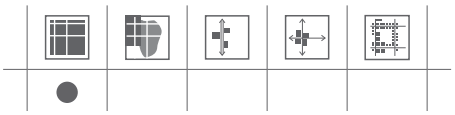
LOCATION: Metuchen, New Jersey
SITE: 5.7 acres
PROGRAM: 105 stacked flats
DEVELOPERS: Landmark Communities & Atlantic Realty

This project creates a pedestrian-oriented edge that is in keeping with the character of this small downtown. The entrances to the stacked townhouses are from the sidewalk. Along the side streets, the project makes a transition in scale from the attached townhouses to the single family residences along the rest of the block. A significant aspect of this project, is that the relatively high densities are possible because of the way the parking is managed. On-street parking counts towards the total

Plan courtesy of Landmark Communities

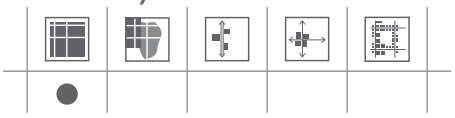
obligation. In addition, the parking on the interior of the block is organized around a series of small courts and linear "green" that creates more "on-street" parallel parking. Finally, where two spaces are shared by a single unit, they are stacked end-to-end.

Metuchen, New Jersey



This small office building in Metuchen (near the Franklin Square project described above) has a strong orientation to the street by providing multiple entrances and large window areas into the work spaces. The parking is in a small lot completely behind the building. The roof forms and massing are appropriate for a site that straddles the edge of the downtown and the residential neighborhoods behind.

Goshen, New York

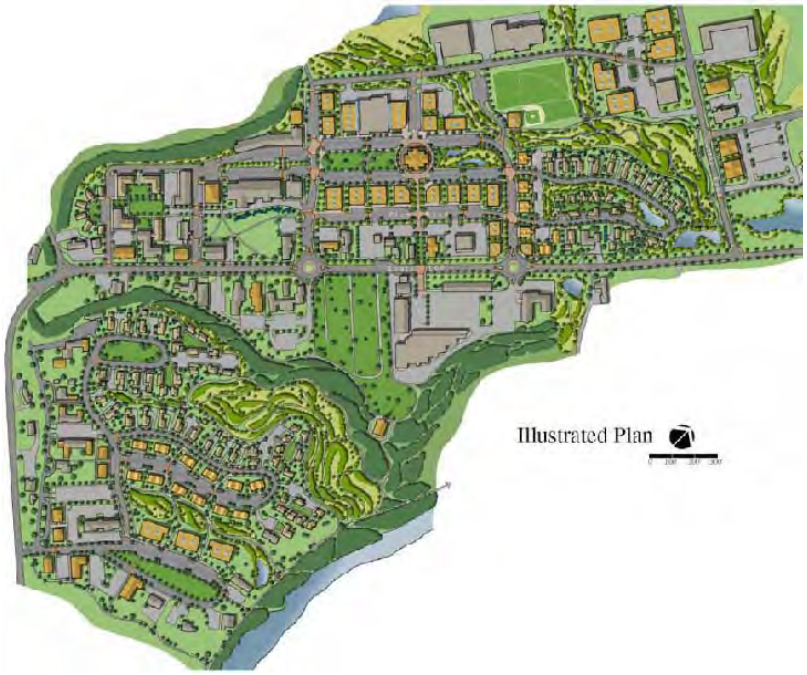


LOCATION: Goshen, New York
SITE: 0.5 acres
PROGRAM: Office and retail

This building demonstrates how a small infill building can help complete a downtown. Because the wedge-shaped site is narrow, parking cannot be entirely behind the building. But it is entirely to the side behind an architectural screen wall and liberal landscaping. This enables the building to be oriented to the surrounding sidewalks, even though the site is an odd wedge shape. The architecture is animated and reflects the context created by similar buildings in downtown Goshen.

Irasville District

LOCATION: Waitsfield, Vermont
SITE: 190 acres within Town of Waitsfield
PROJECTED PROGRAM: Mixed-use, walkable village center



Waitsfield, Vermont was traditionally an agrarian community that has shifted in recent years toward being a resort destination, bedroom community, and local commercial center. Irasville was designated the town's growth center in the 1970s and has been the focus of significant growth since that time. However, the atmosphere in Irasville lacks many qualities of a traditional village center because, due to a lack of pedestrian amenities (i.e., sidewalks and street trees) people drive among their destinations.

The Waitsfield Planning Commission, Mad River Valley Planning District, other town officials and residents have developed planning concepts and documents for new growth and development in Irasville. Despite this support for the concept of a more village-like and walkable center, several issues have made the creation of a growth center difficult and have therefore led to the proliferation of less-dense development. Issues hindering centered development include difficulty managing stormwater, the presense of undevelopable wetlands in the growth center area, zoning regulations without incentives for mixed use development, and the absense of municipal water and sewer infrastructure.

Although the community has many planning documents that could be models for other communities wishing to expand and enhance their centers, there has not been significant implementation of the growth center vision. The town needs additional political support and funding for sewer and water infrastructure investments to implement the growth center vision.

Courtesy of Randall Arendt

Google Earth

Courtesy of Randall Arendt

Current Conditions

Rockville Town Square

LOCATION: Rockville, Maryland, a close-in suburb of Washington, DC
SITE: 15 acres of aging strip retail, a gas station, and deteriorated townhomes
PROGRAM: 644 condominium units, 175,000 sq. ft. retail, 600,000 sq. ft. office, town square, library, arts and innovation center, tech business incubator, 3 wrapped structured parking garages (970 spaces) with both public and private components
DEVELOPERS: Federal Realty Investment Trust & RD Rockville, LLC in partnership with City of Rockville, Montgomery County, State of Maryland and the federal government

Links

The Town Square has wide sidewalks (up to 20 feet) lined with retail and outdoor seating for restaurants. Two new streets–Gibbs Street and the extension of Maryland Avenue–have made the blocks shorter and more uniformly sized. The development is about 1/5 mile from the metro rail station and is accessible by bicycle on multi--use paths. Much of the development adjoining the town square (along Rockville Pike) remains auto-oriented commercial strip.

Communities

The Town Square has a mixture of employment, residential, recreational and civic uses. Retail establishments include many national chains and some local businesses. Street-level retail with residential and office space on upper floors creates a lively community with traffic in both daytime and evening hours. Outdoor civic spaces, such as the town green and the rooftop event space, combine with an indoor civic space (the public library) to facilitate community gatherings in all seasons.

Tools and Actions

Rockville Town Square opened in 2006, but the planning process began with a community visioning that took place in the mid-1990s. The city entered into the visioning process hoping to address issues including the absence of an attractive town center environment, a declining retail economy, and a shortage of multifamily housing.

The community-based planning process was one essential element of the project's success. The community vision developed in the mid-1990s drove development of a Town Center Master Plan, which was adopted by the Mayor and Council in 2001. Throughout 2003 and 2004, the City held additional citizen forums to unveil new elements of the plan and to obtain citizen input.

Another essential element of the project's success was collaboration with private-sector development partners. The city owned only 4.5 acres of the land, and the rest was owned by private landowners. The Town Square cost approximately $352 million, more than 70 percent of which came from private sources.

Private-sector development partners also participated in the community planning process. They worked with the city to outline the design of the town square at a very detailed level. This helped ensure the creation of a pedestrian-friendly environment in alignment with the community vision but that would also meet the developers' specifications.

Courtesy of Google Earth

Excelsior and Grand

LOCATION: St. Louis Park, Minnesota, a suburb of Minneapolis
SITE: 15-acre site, blighted, auto-oriented commercial strip development; part of community plan for a 125-acre downtown development
PROGRAM: Mixed-use mid-rise containing 338 apartments (some units affordable), 322 condominiums, 88,000 sq. ft. of retail space, 1650 shared structured parking stalls underground and in midblock garages, 265 on-street parking stalls, 1.5-acre town green, and 300-seat amphitheater
DEVELOPER: TOLD

Nature

LEED – Neighborhood Development certified community. The Minnesota Department of Trade and Economic Development (now DEED) provided pollution clean-up funding.

Links

Three regular bus lines serve the site along Excelsior Boulevard. There are also two circulator routes connecting employment, community and housing centers. Light rail is planned for the corridor.

Pedestrian and bicycle travel connectivity were also improved. The project included a redesign of Excelsior Boulevard into a four-lane landscaped avenue with parallel parking. Most retail faces the street. The city also made upgrades to the adjacent park, improving connections to the neighboring recreation center and regional bike trails.

Communities

The site contains a mix of housing, recreational and retail uses. It is within a 1-mile radius of over 10,000 jobs (including a medical center) and over 6,000 other housing units. It is also within a 1-mile radius of extensive retail, entertainment and services. Although the redevelopment site offers a pedestrian-friendly environment, much of the nearby development is currently auto-oriented.

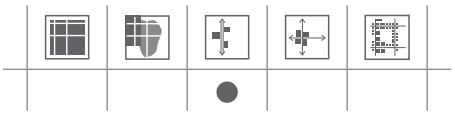
Tools and Actions

The Excelsior and Grand redevelopment project emerged from a city-wide visioning effort that began in 1994. Obtaining funding for the planning and development process was critical to the project's implementation. The project used a total of $30 million in public financing. This included both state funding and Livable Communities Act, provided through the regional government, which made funding available for infrastructure projects that supported transit and walking. This funding was used for predevelopment planning (a community design charette and market and transit studies) and infrastructure improvements such as structured parking and pedestrian and transit improvements. The city also used a tax increment finanancing program to fund some improvements. The remaining funding for the project–$98.2 million–was from private sources.

The city purchased 37 properties to make the project work. It did not employ eminent domain (which at the time was legal for private development in the state), although some believe the availability of eminent domain enticed property owners to sell to the city voluntarily.

This was a complex mixed-used project and the first developer dropped out after a year and a half of working on the project. A new developer, TOLD, was selected in July 2000 and opened the project in 2003. Project flexibility was essential to its success. It evolved over time with several design changes to meet the needs of the new developer and changing market conditions. For example, the town green design changed to be more supportive of the ground floor retail tenants. The market rather than the city determined the residential unit size and mix, commercial tenant selection, and some characteristics of the affordable housing element.

First Street

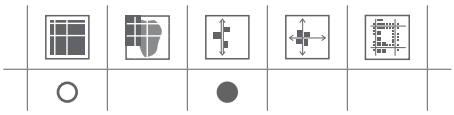


LOCATION: Livermore, California
SITE: First Street corridor
PROGRAM: Streetscape improvements, town green, road narrowing

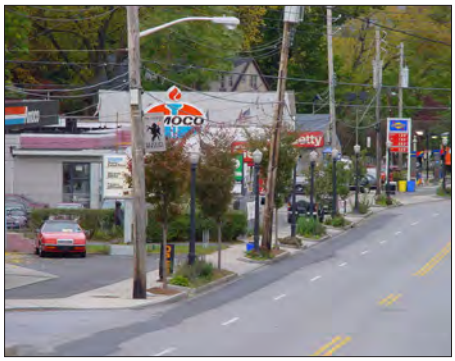
A right-turn "slip lane" was closed and the area it occupied turned into a central town green.

In 1960 First Street, Livermore's main street, was designated a state highway. Its 4 lanes became congested with car and truck traffic and local businesses suffered. Crossing the street on foot was challenging. In 2004, the city wrote a new downtown plan that called for returning First Street to its traditional "Main Street" status. It called for ambitious streetscape improvements, including complete reconstruction of 1,700 linear feet of First Street, portions of side streets and 3 major intersections. The city also identified a parallel arterial to be the permanent detour route for through traffic formerly traveling on First Street. To improve pedestrian experiences and reinvigorate the city's downtown, the city narrowed the street to 2 travel lanes. Space formerly devoted to outside lanes and parallel parking became diagonal parking (increasing total parking available) and extra rows of street trees. Other improvements included a series of trellises and information kiosks, a plaza, benches, planters, landscaping, and outdoor eating areas. The style of the design elements, such as the trellises, draws on Livermore's wine culture. Ongoing public outreach and communication with local merchants was essential to the project's success. Since the improvments, First Street has received significant new investment in downtown housing, retail, and entertainment venues.

Route 9



LOCATION: Sleepy Hollow, New York
SITE: 0.25 miles of Route 9 and a 1-acre site
PROGRAM: Streetscape improvements, new "Main Street"-style buildings



New York State Route 9, the original Albany Post Road that extends from Lower Manhattan to Albany, reincarnates itself in every community through which it passes. As it extends into Sleepy Hollow from Tarrytown, it goes from being a "main street" to a commercial strip. However, the corridor is gradually transforming to meet the community's objective of creating a true gateway. The first step was a round of streetscape improvements that involved new sidewalks, landscaping and pedestrian-scaled street lighting. Even though strip uses have remained along much of the corridor – such as gas stations and a car-rental establishment - the streetscape improvements have had a huge impact on the quality of the pedestrian and visual experiences.

Several recent redevelopment projects have also begun to change the character of the corridor. A new office building is located at the sidewalk where it helps define the space of the street. The ground floor is transparent and the entrance is from the sidewalk frontage. Parking is located to the sides of the building and is well-screened. Future redevelopment similar to this project will transform this corridor.

Courtesy of Google Earth

Washington Town Center

LOCATION: Robbinsville, New Jersey
SITE: 500-acre site, along Route 33, 10 miles from Trenton
PROGRAM: Current: Several hundred single-family attached and detached homes and two mixed-use residential & commercial buildings (containing retail), public parks, gardens and plazas. Future: Two additional mixed-use residential-commercial buildings. When complete, close to 1,000 residential units and more than 500,000 sq. ft. of retail space
DEVELOPERS: Sharbell Development Corporation, King Interests

Nature

The Township has obtained county, state and federal funding for infrastructure and open space preservation.

The Master Plan's "Open Space Design Standards" element is another key implementation tool that has enabled the township to realize its vision for a town center. It contains detailed conceptual designs of Town Center's parks and public spaces, outlines street tree locations and species, and sets guidelines for other public realm elements such as sidewalks, curbs, fences, walls and street furniture.

Links

The "Town Center Zoning and Design Regulations" section of the Master Plan specifies the locations and design specifications for all streets and alleys. Part of the town center vision was the construction of a 1 mile bypass to enable conversion of highway route 33 into a more pedestrian-friendly "Main Street." Although for several years this plan was stalled due to a lack of state support for the plan, in 2009 the New Jersey Department of Transportation renewed its commitment to building the bypass.

Communities

The plan encourages mixed-use development and variety in building types, sometimes requiring a "maximum" and "minimum" of each land use and building type.

Tools and Actions

The "Town Center Zoning and Design Regulations" section of Robbinsville's 2000 Master Plan is both a Master Plan element--containing the Township's vision for future development--and a zoning ordinance. It contains guidelines not only for permitted uses and bulk requirements, but also for architecture. It also locates all public spaces. The township has also developed a system of incentives to bring about certain types of development. These incentives include density bonuses, public funding of infrastructure, and public partnering in obtaining permits.

The Township has also been an active partner with developers in facilitating the development process and realization of the plan. For example, it has pursued and obtained state permits at its own expense. It has also worked to streamline and increase the predictability of the local approval process.

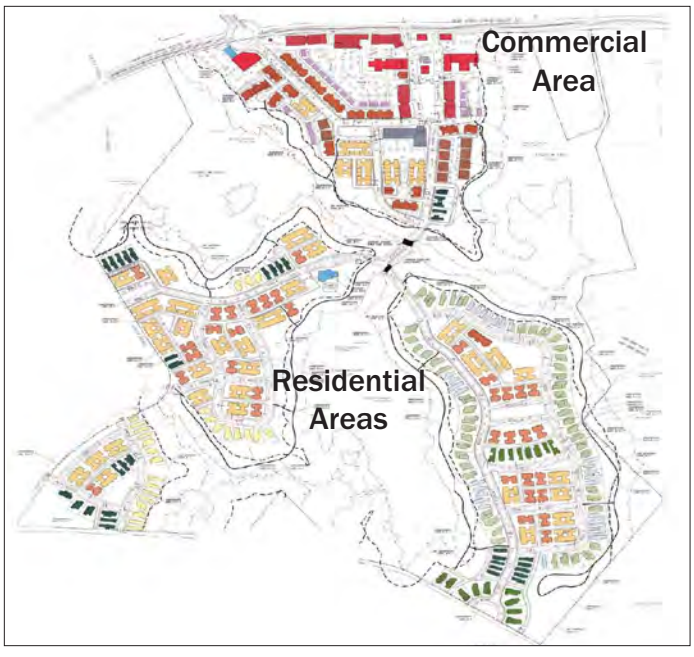
LaGrange Town Center

LOCATION: LaGrange, New York
SITE: 200 acres (most is currently undeveloped)
PROJECTED PROGRAM: 600 residences total mixed with the commercial area and two nearby residential areas (small-lot single-family, duplexes, flats, carriage homes & townhomes), commercial area with 78,500 sq. ft. hotel, 71,500 sq. ft. retail, 93,000 sq. ft. office, town green, public spaces, flats in commercial area
DEVELOPERS: Ginsberg Development Companies, LLC.

LaGrange and Dutchess County were once rural in character, but have become more suburbanized over the past century. By the 1980s the town had become auto-dependent, with development characterized by strip shopping centers and disconnected subdivisions. Encouraging a town center--which LaGrange hopes will promote tax-generating commercial activity, reduce sprawl, and redirect growth towards traditionally-designed neighborhoods--has been a town goal since its 1987 Comprehensive Plan.

Although the town center has not yet been built, LaGrange has taken many steps towards realizing its goal. It has modified its land use regulations to encourage a town center. In 2003 it adopted a Town Center zoning code and in 2005 it adopted a new Comprehensive Plan. In 2006 developers submitted conceptual plans to the planning board to develop the town center's core. As of May 2009 the project was undergoing the state environmental review process.

Developers plan to build the town center according to traditional neighborhood design principles. This includes village-scale townhouses fronting directly on the street or arranged around small park spaces. Some duplexes and townhouses may be designed to look like single family homes. Many homes will have front porches and stoops, and garages and parked cars are kept away from the front of the homes by using rear lanes and setback garages. The plan also calls for upgrades to Route 55, the main thoroughfare, such as traffic circles to improve traffic flow.



Warwick Grove

LOCATION: Warwick Village, New York (50 miles northwest of New York City in Orange County)
SITE: 310-acre site, less than one mile from village center
PROGRAM: 215-unit residential neighborhood (restricted to adults age 55+) containing 31 townhomes, 154 detached single-family homes and 30 condominiums, a community center, village greens and a post office.
DEVELOPERS: Warwick Grove Company, LLC, an affiliate of LeylandAlliance LLC and Tarragon Corporation. Master Plan consultants Duany Plater-Zyberk.

Nature

The site is dominated by wetlands. In order to preserve wildlife habitat, including wetlands, the buildings and dwellings are concentrated into four relatively compact neighborhoods while leaving the rest of the site undeveloped. There are guidelines for other public realm elements such as sidewalks, curbs, fences, walls and street furniture.

Links

Warwick Grove is within walking distance of the public library and the village's "Main Street." A path through Memorial Park creates easy connectivity between Warwick Grove and the village center.

Communities

The site contains a community center and is within walking distance of a park, post office, public library and the village's "Main Street."

Tools and Actions

In the late 1990s the Town of Warwick received a New York State Quality Communities Grant. It used this grant to undertake a town-wide master planning effort, educate the public about planning and conduct land use and zoning studies. Focal issues in the planning process were farmland preservation and addressing the impact of development. In 1999 the Town Board adopted a new Comprehensive Master Plan. One of its main themes was to protect farmland by steering population growth into its three village centers, including Warwick Village. While considering a revision to its zoning code, in 2001 it imposed a one-year building moratorium.

In 2001 the Township revised its zoning code. Highlights include density reductions through incentives to cluster development and a modified Transfer of Development Rights program. The new zoning code also created agricultural and water conservation districts.

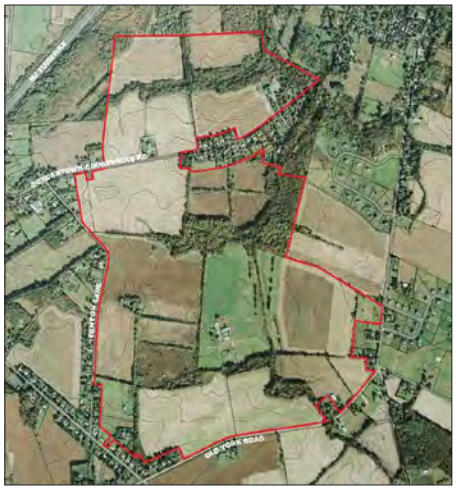
New zoning regulations, coupled with improved communication between village and town officials, appear to be succeeding at directing new growth toward existing vibrant villages such as Warwick Grove while protecting a nearly $70 million/year agriculture industry.

In addition, in 2000 Warwick voters passed a $9.5 million purchase of development rights bond issue. The village can use this money to purchase the development rights of farm properties and open space. The land remains farmland in perpetuity while farmers receive money to use for modernizing operations or meeting other expenses. This helps them deal with financial needs without selling their land to developers. To date, 2200 acres have been or are being preserved.

Old York Village

LOCATION: Chesterfield, New Jersey, a rural community in Burlington County, New Jersey
SITE: 560-acre master-planned site
PROGRAM: When complete: 1,200 attached and unattached single-family houses, affordable units scattered throughout village (twins and quads that look similar to single family detached homes, row houses and apartments above shops), an elementary school, recreation facilities, village center with neighborhood-scale retail and office uses, network of streams and walking paths.
DEVELOPERS: Matzel & Mumford, Toll Brothers, K. Hovnanian Companies. Planning consultants Clarke-Caton-Hintz.

All images courtesy of Clarke Caton Hintz



Nature

The TDR (transfer of development rights) program has thus far facilitated the preservation of over 2000 acres of farmland in the surrounding Township, while other state preservation programs have facilitated the preservation of another 4800 acres. As of 2008, no major subdivision application for land in the Township's Sending Area has been processed by the Planning Board since TDR was enacted. Virtually all of the residential development during that period has been channeled into the Receiving Area.

Links

Open front porches, bicycle and walking paths, street furniture, and pocket parks encourage pedestrian activity and neighborly interaction. The zoning ordinance requires that developers build according to a variety of site planning and architectural guidelines. At the neighborhood scale, this includes guidelines for an interconnected street network, the open space network, stormwater management, and recreation facilities. Homes are situated close to the sidewalks in front of them, and many garages open onto rear alleys.

Communities

Old York Village will contain a mix of uses, including a school, recreation facilities, residences, and neighborhood-scale retail.

Tools and Actions

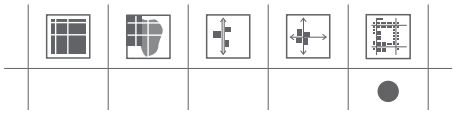
The key policy for preserving farmland while accommodating population growth has been the Township's TDR program. This strategy was outlined in Chesterfield's 1997 master plan and enacted in 1998 through changes in the zoning ordinance. Through this program, the residential development rights in rural parts of the township (the "sending area") are transferred to the 560-acre "receiving area," known as Old York Village.

With funding through a Smart Growth Planning Grant from the NJ Department of Community Affairs, the Township commissioned the conceptual design of the Planned Village according to Traditional Neighborhood Development. This design is embodied in a Master Plan amendment adopted in 2002 and was incorporated into the zoning ordinance. Therefore, although most of the village is being constructed by five private-sector builders, it has an aesthetic similar to the Township's historic villages.

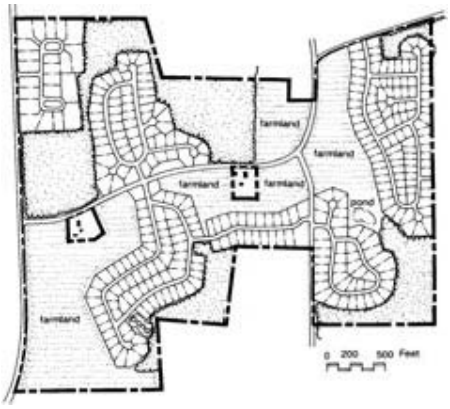
Historically, Chesterfield has not had a municipal sewer system. To facilitate denser development in Old York Village and increase the attractiveness of the site to developers, the state of New Jersey authorized the township to use an underutilized sewer system that serves the correctional facilities in the township. As opposed to the common practice of the first developer paying for infrastructure and then seeking repayment from subsequent developers, the village developed a system in which the costs of some of the infrastructure in the development were shared among developers on a per-unit basis.

Financial and technical assistance has been pivotal to the township's planning and implementation efforts. This assistance came from several sources, including Burlington County, The State of New Jersey Department of Community Affairs and Environmental Protection.

Farmview



LOCATION: Lower Makefield Township, Pennsylvania
SITE: 418 acres of former farmland
PROGRAM: 332 large houses on average 0.5-acre lots (in traditionally a one-acre minimum lot size zone); conserved 137 acres of farmland (leased to farmers) & 76 acres of woods (51% of site)
DEVELOPERS: Realen Homes



Lower Makefield Township is a rural community on the west bank of the Delaware River. Farmview is a conservation subdivision. Instead of building on 1-acre lots as the zoning permitted, the developer worked with the township to gain permission to build the same number of homes on smaller lots while preserving the remainder of the site as open space/farmland and donating it to the local farmland preservation corporation. The developer purposely maximized the number of homes that had permanently-protected farmland vistas or abutted woodlands, which was an attractive feature to buyers. The township has experienced reduced street and utility infrastructure maintenance costs because of the smaller lot sizes. The compactness of the neighborhood may also facilitate social interaction.

Weatherstone

LOCATION: Routes 401/100 at Ludwigs Corner, Chester County, Pennsylvania
SITE: 300 acres of undeveloped land, 65% of which remained open space after development
PROGRAM: 273 single-family and attached residences, 240,000 sq. ft. retail and office space, library
DEVELOPERS: Hankin Group

The rural Pennsylvania community of West Vincent Township has been using the planning process to help secure protection of a network of open space in its borders. Community members use open lands for economically productive purposes (agricultural production and grazing) along with maintaining forest habitats for animals and providing recreational opportunities. To guide the land preservation process, the township developed a map of potential conservation lands. The map identifies primary conservation areas (unbuildable wetlands, floodplains, and steep slopes) along with other opportunities for land preservation.

The property now containing the Weatherstone "village" development had been a subject of controversy for some time. It went through several proposed development scenarios before parties agreed to the current development scenario. The current development is a walkable conservation subdivision built with neo-traditional style streetscapes laid out in reference to the community's land preservation and development map. Weatherstone's development areas are located in those parts of the property that were indicated on the map as appropriate for development. The community includes small neighborhood parks, trails, and preserved natural areas and is served nearby by both bus and rail transportation.

Weatherstone contains many green infrastructure features that help maintain water quality and reduce the need for traditional infrastructure. It recharges groundwater supplies through the use of spray irrigation, in which fully treated wastewater is applied to conservation lands. Its stormwater management system features infiltration measures rather than more conventional "catch-and-release" approaches.

ADDITIONAL RESOURCES

The Infill and Redevelopment Code Handbook
Tools to address barriers to infill/redevelopment in development codes
http://www.oregon.gov/LCD/docs/publications/infilldevcode.pdf

Smart Infill **by The Greenbelt Alliance**
12 key strategies to bring about well-planned infill housing and mixed-use development
http://www.greenbelt.org/downloads/resources/report_smartinfill2008.pdf

Models and Guidelines for Infill Development **by Maryland Dept. of Planning**
Model & example zoning codes
http://www.mdp.state.md.us/PDF/OurProducts/Publications/ModelsGuidelines/InfillFinal_1.pdf

Retrofitting Urban Arterials into Complete Streets **by John LaPlante**
www.urbanstreet.info/3rd_symp_proceedings/Retrofitting%20Urban%20Arterials%20into%20Complete%20Streets.pdf

Introduction to Compete Streets
http://www.slideshare.net/CompleteStreets/complete-streets-presentation

Road Diets **by Michael Ronkin**
http://www.smartgrowthonlineaudio.org/np2007/310c.pdf

Nature

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DETAILS

WHAT you need to do

INDEX OF DETAILS

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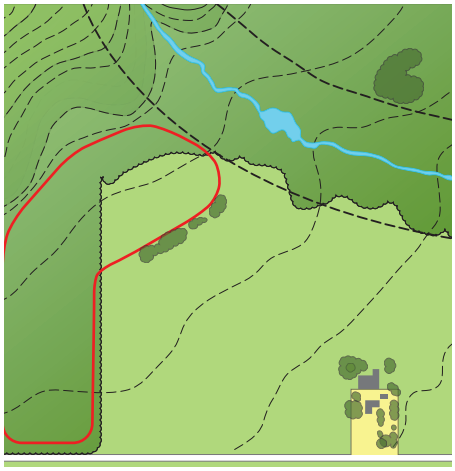
How to Create Conservation Subdivisions



N10 Existing landscape

A few houses, many on existing or former farms, but an otherwise unspoiled/intact rural landscape.

Step 1

Require a map of the open space system for the parcel and surrounding area.

A. Locate Appropriate Places for Development

A sketch analysis of the area provides all the basic information to calculate how a development can fit into the landscape – what land should be protected and potential development pockets.

N11 Subdivision sprawl

Individual parcels are developed for stand-alone, large lot houses which spread out across the landscape degrading visual and environmental resources.

Step 2

Conventional sketch layout determines maximum lot count under existing three-acre zoning.

B. Typical Superimposed Subdivision

- Productive farmland lost forever
- Pleasant view from road ruined.
- Stream corridor cut off by backyards.
- Large lots divide up and dominate the landscape.
- Individual roads for each subdivision.
- No chance for residents to enjoy special site features.

N12 Conservation neighborhood

Development is concentrated in more compact neighborhoods, preserving the visual and environmental integrity of most of the landscape.

Step 3

The same number of houses can fit into the landscape while preserving 80 percent of the open space.

C. Conservation Subdivision

- Large farm fields protected.
- Rural view from road retained.
- Trail system allows access to stream.
- Smaller, but substantial individual lot sizes with central green.
- Potential connection to adjacent parcel.
- Less expensive construction costs.
- Residents have views of open field and direct access to woods.

existing

uncoordinated conservation

coordinated conservation

N20 Link resources on and between parcels

Preserving natural resources on individual parcels does not insure the continuity of larger natural systems. Resources must be linked to insure the effectiveness of natural systems such as stormwater and habitat, in addition to visual value. The location and configuration of open spaces on adjacent conservation subdivisions should be coordinated to create a green network of continuous natural corridors.

N31 Typical green network

A green network is an amalgam of various contiguous and connected open space and natural resources. These resources include but are not limited to buffered streams and water bodies, active and passive parks, stands of mature trees, and natural turf playing fields associated with schools or other institutions. It is both an amenity for the community and an active part of a passive storm water management strategy. Connections may be large open spaces or more constrained green treatments such as green streets (see details N70 and N71) and mid-block lawns (see detail N47).

N40 Place more density on gradual slopes

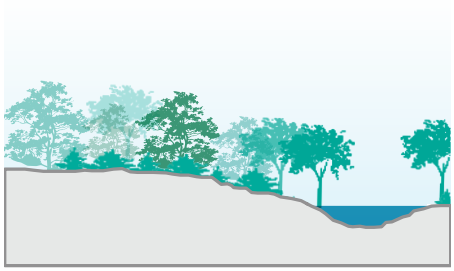
Steer intense development to gradual slopes (1% to 15%) as "table-flat" lands are often either best suited to agriculture or are environmentally sensitive. Reduce requirements for flat land in each lot to maximize land efficiency and to minimize earthworks. Connect developed terraces with streets that either follow the contours or that climb steeply over short distances.

N41 Use high points carefully

High points are very visible and desirable locations. When development leaves them unbuilt, environmental impacts are reduced while access to these points can be available to all. Capitalize on the district's high points in a district by preserving them for the whole community.

N42 Buffer

Most people greatly value nature close to home. Green systems should be protected for their social, economic, and ecological value. Streams require wide forested buffers in order to maintain water temperature and to ensure a food supply for fish. Human use in these areas must be carefully controlled, and in some cases, prohibited to preserve natural function and to maintain the qualities that give these areas their value.



N43 Runoff destination

Natural condition

In the natural landscape, very little water runs off directly into streams and other water resources. Most water either goes back into the atmosphere through evaporation and transpiration or through the ground into the aquifer where it slowly makes its way to the stream as clean water.

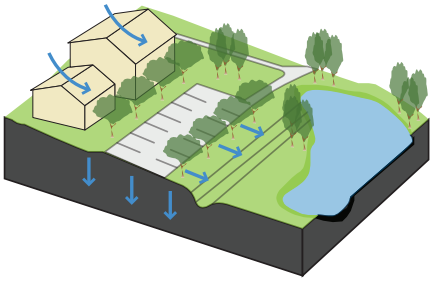
N44 Runoff after conventional development

After conventional development, site clearing and impervious surfaces cause most rainfall to speed to the water resource as runoff that is both the wrong temperature and polluted with non-point source pollutants such as fertilizers and car exhaust particulates.

N45 Runoff after low Impact development

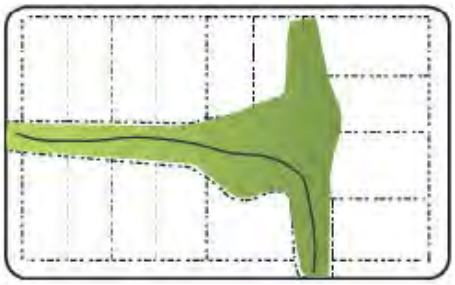
Small-lot residential

Direct run-off of polluted water into streams and water bodies is minimized by protecting trees and pervious surfaces and by proper grading.



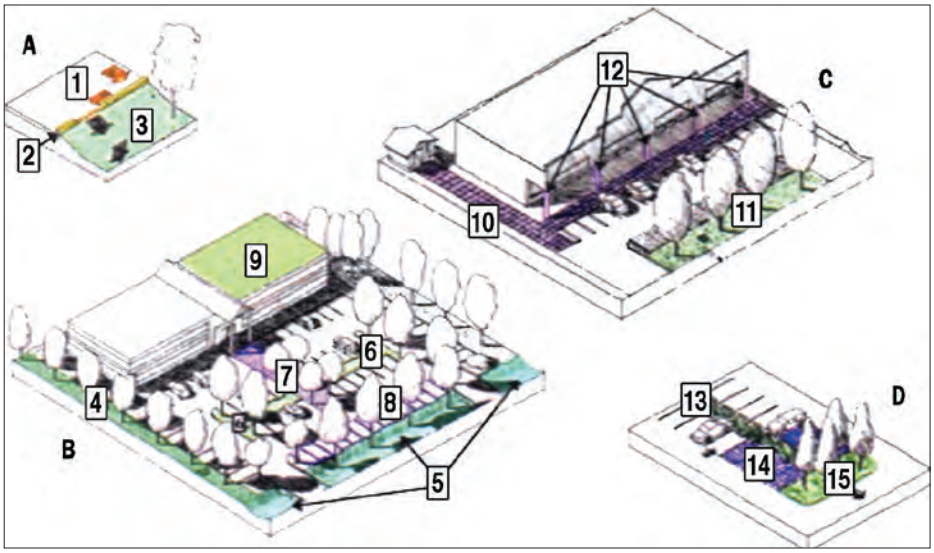
N46 Water flow

Manage water flow on larger parcels. Large building footprints and vast parking lots lead to higher percentages of impervious surfaces on the parcel. Use porous paving and/or infiltration devices for parking areas and paths, and use landscaped areas as "rain gardens" for stormwater management. Where possible, create some smaller parking stalls and use one-way aisles in conjunction with angled parking to reduce impervious surface cover. Plant shade trees so they will cover 50% of the parking surface at maturity. This will reduce heat and improve stormwater management. Create an on-site retention pond for peak flow reductions and to slow infiltration into the soil.

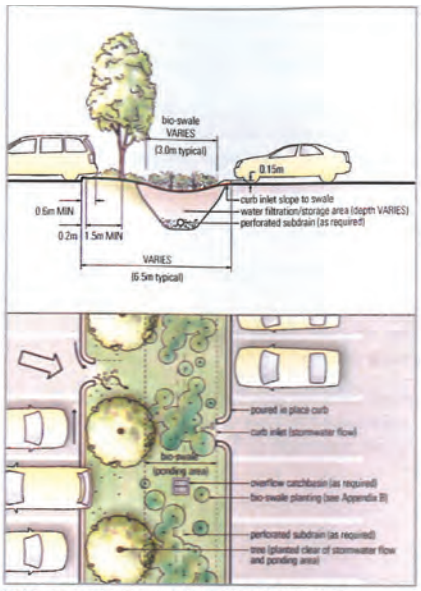


N47 Mid-block green

An individual block may wrap itself around a natural feature. The residents whose properties contain the natural feature may hold it either in common or individually (with restrictive covenants on use).



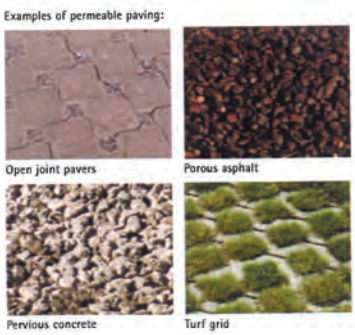
N50 LID applications – commercial



Design concept for bio-retention swale with tree planting

N51 Parking lot bioswales

Large volumes of polluted water run off of commercial parking lots. To the greatest extent possible this water should be captured and cleaned in bio swales with plants before being released into the ground. (photo, top center)



N52 Permeable pavings

Permeable paving materials can help reduce run-off as well.

Courtesy of Nevue Ngan Associates

Courtesy of Kevin Robert Perry, City of Portland

Courtesy of Tom Lipman, City of Portland

Photos above

Green streets can work in urban conditions.

N50 LID commercial Applications

A
1. Bioretention (Grading)
2. Bioretention (Inlet)
3. Bioretention

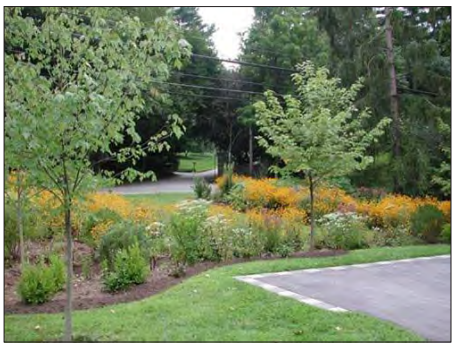
B
4. Grass Swale
5. Bioretention
6. Bioretention
7. Permeable Pavers (Walkway)
8. Permeable Pavers (Overflow parking)
9. Green Roof

C
10. Permeable Pavers
11. Bioretention (To storm drain system)
12. Disconnectivity (Disconnect downspouts)

D
13. Permeable pavers
14. Bioretention
15. Grass swale

Photos below

Curbless details on roads and parking lots allow water to run off into bioswales.



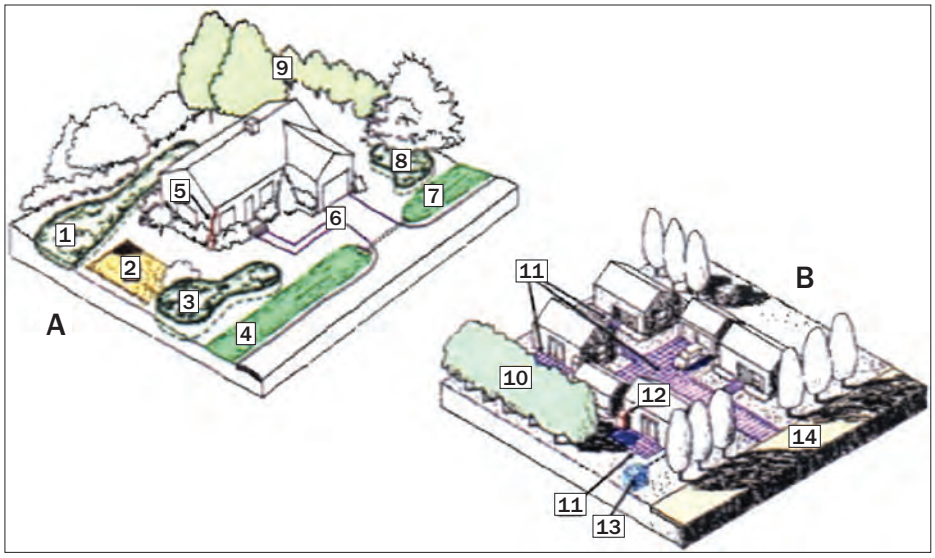
N60 LID residential Applications

A: Low Density Residential

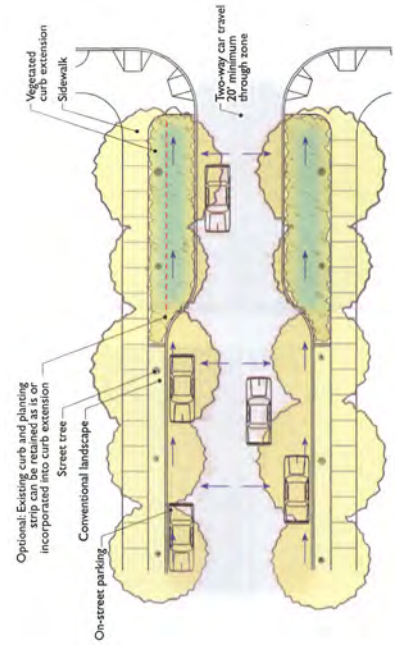
1. Bioretention / Rain Garden
2. Soil Amendments
3. Bioretention / Rain Garden
4. Grassed Swale
5. Disconnectivity (Rain Barrel)
6. Permeable Pavers
7. Grassed Swale
8. Bioretention / Rain Garden
9. Conservation

B: High Density Residential

10. Conservation
11. Permeable Pavers
12. Disconnectivity (Rain Barrel)
13. Disconnectivity (Dry Well)
14. Minimizing Imperviousness (Reduced street width)

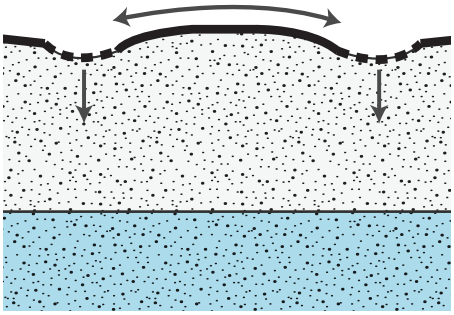


From Dawn Miller



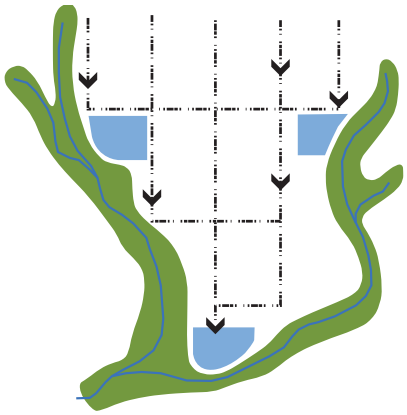
N70 Suburban green street

If properly designed, streets can be an integral part of a best-practice storm water management strategy: width of pavement should be minimized and a continuous planting zone on either side of the street will maximize infiltration and reduce heating of the paved surfaces. In the overall passive storm water management plan, some streets may be used to collect storm water in an infiltration swale and direct the water towards water resources (streams, wetlands) where the cleaned water is collected.



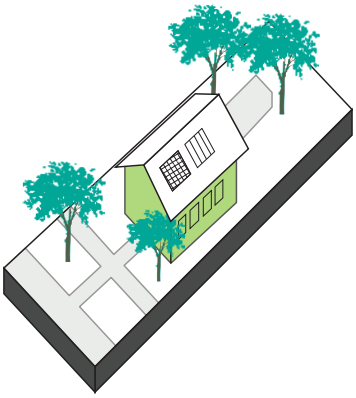
N71 Bio-swale street edge

Research suggests that the health of watersheds is compromised when the effective impervious area (comprised mostly of streets and rooftops) exceeds 10% of an entire watershed. Reducing the width of streets will reduce the amount of impervious surface area, while using the roadside area to clean and absorb rainwater will minimize the impact of remaining impervious surfaces. It is possible to reduce a total impervious area of 50% to an effective impervious area of 10% or less through these means.



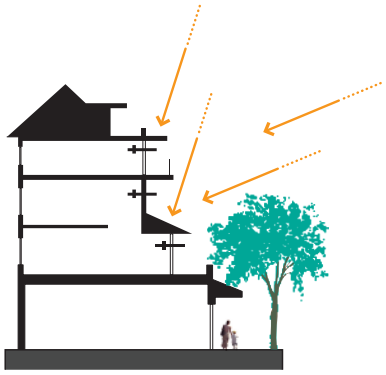
N72 Direct the flow

Streets provide an ideal vehicle for integrating local watersheds to the larger hydrological system. The street network should work with, not against, the natural drainage patterns of a site. Small storms should all be absorbed by streetside and yard soils. Within the connected ecological network, large natural areas such as schools and parks are ideal places for diverting runoff from very large storms and for integrating biological treatment/wetland areas into the district. School and park sites also offer the best opportunity for increasing the biotic diversity of the site and for managing the headwaters of receiving streams.



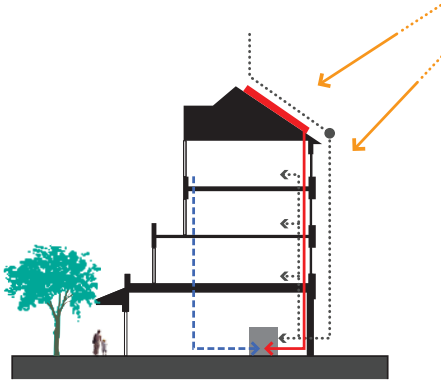
N80 The house

Collection and use of solar radiation at a house-by-house scale can greatly reduce reliance on off-site energy sources. Absorbing heat from the sun can be as simple as orienting the windows of buildings to the south. Overhangs, awnings, or trellises prevent the high summer sun from overheating the house, while the low winter sun can penetrate and warm the home. Double-paned windows and insulation prevent heat loss. Ground-source heat pumps are more cost-effective than conventional heating systems, and district-wide heating systems are more efficient still. A composting toilet combined with greywater filtration can completely eliminate a home's contribution to off-site liquid waste. Simple blackwater package systems are now available to treat waste to about 20 homes. Treated correctly, clean discharges from black and greywater systems provide an exellent and safe source for irrigation water and for slow release into infiltration storm systems, thus using summer base flows in nearby streams.



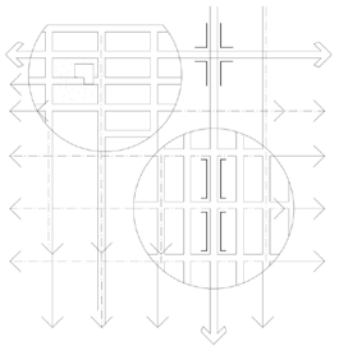
N81 Step the envelope

Stepping the envelope and/or dramatically articulating the facade of a building provides more opportunities for light to penetrate to the deeper recesses of residential units. Window area should maximize the availability of natural light into units. Overhangs, light shelves and awnings should be provided to allow the low winter sun, but not the high summer sun, to penetrate interior spaces. A balcony for each unit lets residents nurture plants and stay in contact with both nature and their community below. Use facades that help to frame a view and that are part of a street wall.



N82 Use energy wisely

Consider the use of solar water pre-heating, photovoltaic panels, wind power, geothermal heat exchange, fuel cells, or other alternative energy sources when siting buildings and infrastructure in order to reduce energy demand and save life-cycle costs.



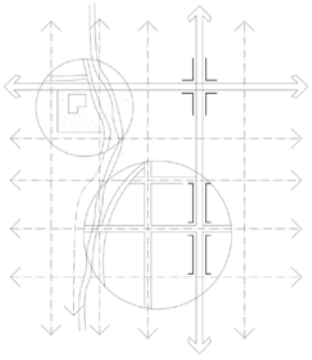
L10 Basic street network

Uninterrupted—typical in centers

- Use 660 feet (one-eighth mile) as a standard for the maximum allowable distance between through streets.
- Bisect to create two 660x330 foot blocks, using the following criteria:
  - o Solar orientation, prevailing winds, and opportunities for locating shade trees on streets and in yards.
  - o Relationship to adjacent block and street pattern.
  - o Orientation to major views (down long axis of block preferred).
  - o Alignment with arterial transit streets to reduce number of intersections on arterial to one every 660 feet.
- Major arterials with transit located every mile. Minor neighborhood collector/ arterials every half mile.

L14 Connectivity calculations

Communities can adopt any of several methodologies for creating a connectivity index. By establishing a requirement for the numbers of intersections relative to the total amount of new road construction, a connectivity index insures a level of interconnectedness without specifying block sizes or configurations. There are several methodologies This insures connectivity without prescribing specific block configurations. See Handy, Paterson, and Butler, 2003, *PAS Report No. 515*, APA.



L11 Network accommodates natural features

Partially interrupted—typical in centers

- Use 660 feet (one-eighth mile) as a standard for maximum distance between through streets
- Create neighborhood parkway edges along edges of natural features. Houses on one side only, where possible. Minimize right of way (one way couplets wherever appropriate).
- Reduce the number of roads crossing natural features without unduly compromising connectivity (crossings every 0.25 miles to 0.5 miles).
- Align long axes of blocks to natural features to facilitate natural drainage and provide view of natural areas from streets.
- Major arterials with transit located every mile. Minor neighborhood collector/ arterials every half mile.

L15 Connectivity within larger sites

Large sites should have multiple points of access to distribute traffic impacts, to create additional connectivity between existing roads, and to enhance community interaction within the development.

L12 Network is organized around natural features

Typical at edges of centers

- Where natural features are wide and numerous, reorient street network to align with direction of water flow. Maintain 660 foot interconnectivity standard as much as possible.
- Create neighborhood parkway edges along edges of natural features. Houses on one side only, where possible. Minimize right of way (one way couplets wherever appropriate).
- Reduce the number of roads crossing natural features without unduly compromising connectivity (crossings every 0.25 miles to 0.5 miles).
- Align long axis of blocks to natural features to facilitate natural drainage and provide view of natural areas from streets.
- Major arterials with transit located every mile. Minor neighborhood collector/ arterials every half mile.

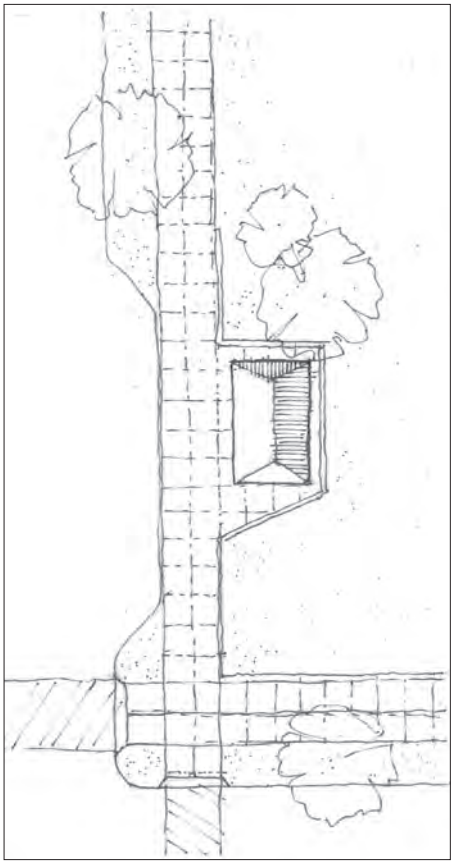
L16 Connectivity between sites

In some locations, new strategic connections in the road network can be created by linking road segments through two or more adjacent large parcels.

L13 Street network in the landscape

Typical in rural settings

- Minimize number of crossings of natural features.
- Maximize connectivity witin mixed-use nodes. Maintain 660' connectivity standard where possible.
- Road alignments should follow topography to minimize cutting and filling.
- Where possible, create neighborhood parkway edges where development fronts onto natural features.
- Maintain continuity of natural systems within developed areas by integrating natural and constructed drainage systems and plantings.

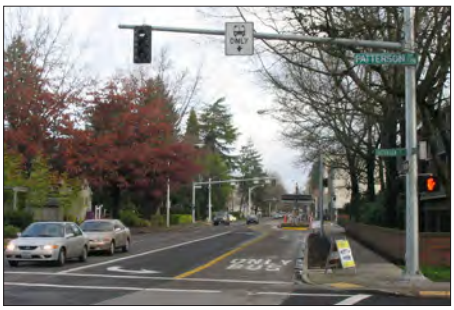


Courtesy of National Complete Streets Coalition

L25 Bus accommodation

Especially in the suburbs, buses should be a desirable transit alternative to the automobile. If this is to be the case, excellent accommodations should be provided:

- Highly visible, well designed and comfortable shelters with ample space for pedestrians.
- Adequate space for the buses to stop, with turn-out spaces on the roadway if necessary.
- Clear and complete signage about schedules, routes as well as a neighborhood orientation map.
- Visible locations near supporting land-uses, community destinations and important intersections.

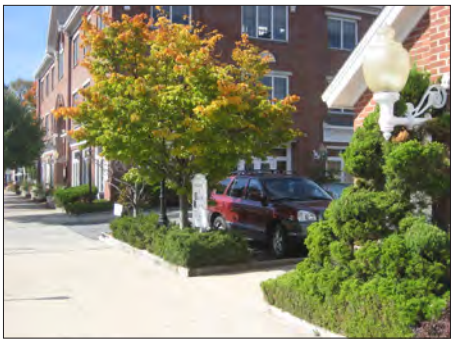


Links L13 L25

L30 Parking lot placement

Preferred

The parking lot is in the middle of the block so that the impact on the street wall and sidewalk experience is minimized. The storefront is on the sidewalk.



L31 Parking lot placement

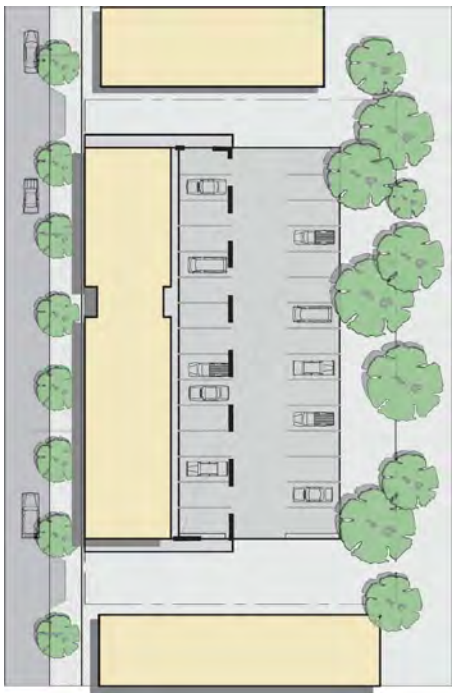
Acceptable

The parking lot is oriented in a way that minimizes its impact on the street frontage and pedestrian experience. Some storefront is still on the sidewalk.

L32 Parking lot placement

Unacceptable

The parking lot destroys the continuity of the pedestrian experience. The parking lot has to be crossed to get to the storefront.



back view

L33 Small parking lot partially beneath buildings

Surface parking lots should be placed behind buildings. For sites that are not deep, parking lots can be partially under the building as shown in the adjacent photograph. In this way, the character of the street is maintained. Small parking decks can also be located behind buildings and where sites are not deep enough, the retail or mixed-use building can "wrap" or be partially built over the parking structure.

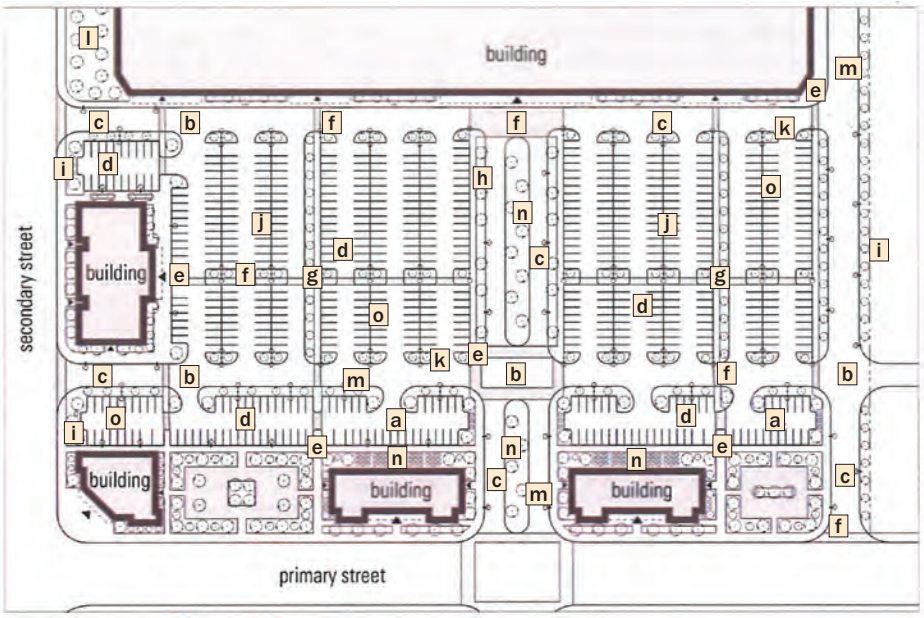
sidewalk view

Courtesy of Toronto City Planning

L40 Parking lot retrofit

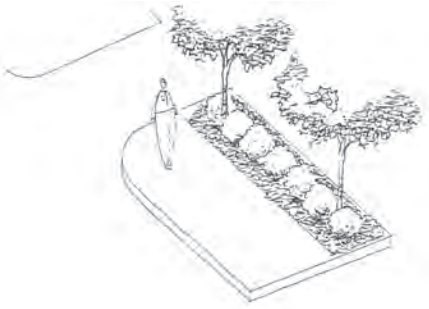
Drawing sequence showing progressive re-development of large-format, auto-oriented retail on a commercial corridor:

1. Parking area for a typical suburban 50,000 sq. ft. store is determined by high ratios such as 5 per 1000 sq. ft., large 10' by 20' stalls and 25' wide aisles.
2. Total area for parking reduced by lowering ratio to 4 per 1000 sq. ft., 9' by 18' stalls and 24' aisles. This leaves space for enhanced landscaping and pedestrian improvements.
3. New sidewalk-oriented development is possible by breaking the lot up into smaller areas (40 spaces) and relocating some of the smaller parking areas to the sides or backs of buildings. New sidewalk-oriented development is now possible along the corridor frontage.



L41 Large parking lot design

a. Parking concealed behind street-fronting buildings and landscaped open space.
b. Parking lot access driveway shared between multiple destinations.
c. Main drive aisle clear of parking spaces.
d. Large parking area divided into smaller parking courts.
e. Direct and continuous pedestrian network.
f. Clearly marked pedestrian crossing.
g. Designated internal pedestrian pathway with shade trees.
h. Minimum 10' wide landscaped medium with shade trees (bio-retention opportunity).
i. Minimum 10' wide landscaped area with shade trees and low plantings for screening.
j. Parking row (20-23 continuous spaces maximum) with landscaped breaks.
k. End of row island with shade trees (minimum 1000 cubic ft. soil volume).
l. Consolidated landscape area (bio-retention opportunity).
m. Coordinated lighting scheme.
n. Bio-retention area/rain garden.
o. Permeable surface (when feasible)



L42 Parking lot screening

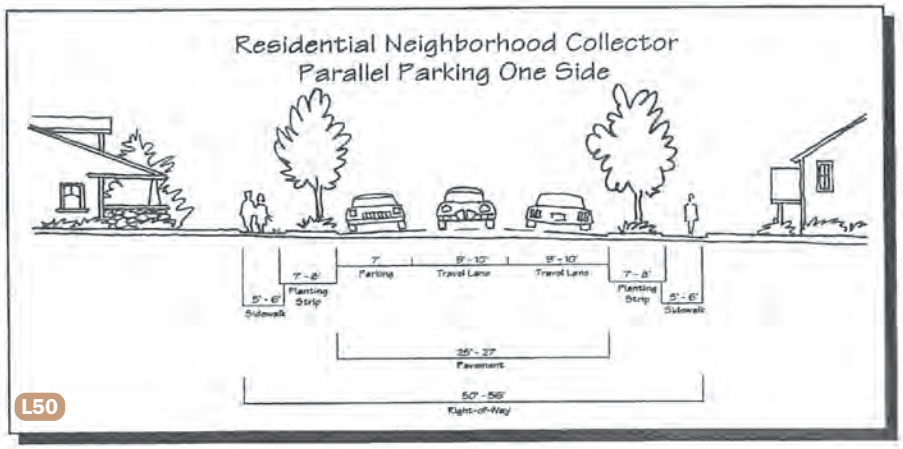
Where portions of surface parking lots have to be along the edge of a sidewalk, the parking lots must be properly screened with landscaping or with an architectural wall or trellis.

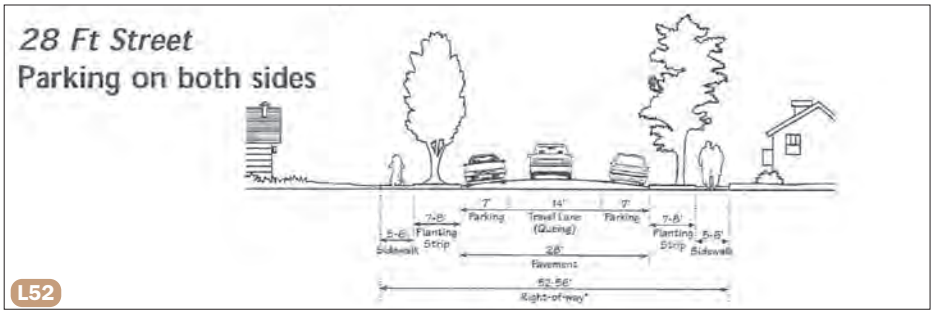
A decorative wall, fencing and shade trees screen views into the parking lot

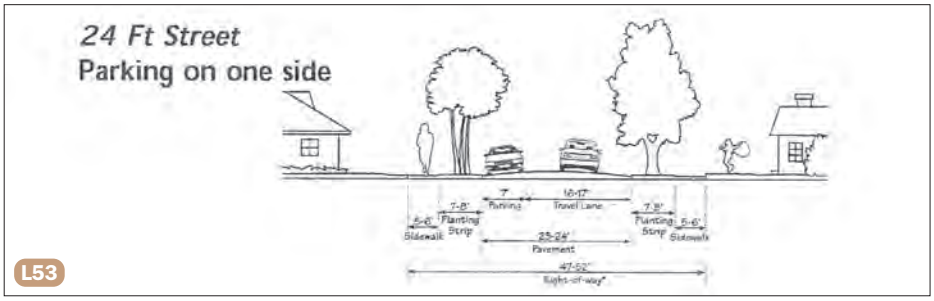
A low hedge and shade trees enhance the public sidewalk and parking lot edge

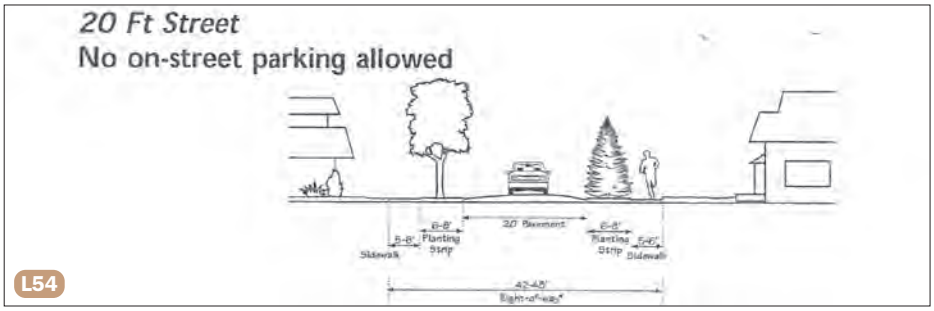
Courtesy of Toronto City Planning

L40
L41
L42







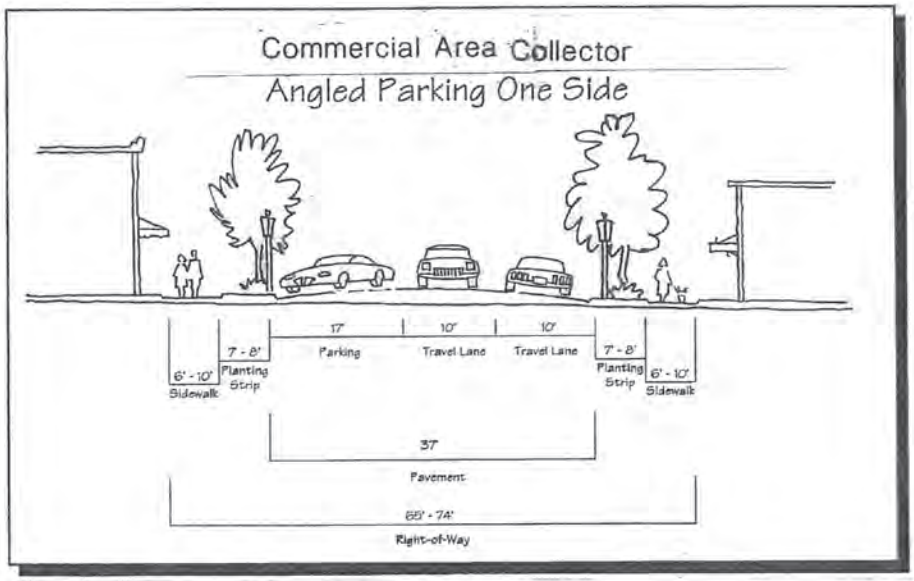


L50 Community-supporting street design

- Build "complete streets" that serve all users, especially pedestrians and bicyclists. On streets where there is not enough room for a separate bike way, provide clearly striped bike lanes.
- Complete streets accommodate the automobile but serve the needs of pedestrians, bicyclists, and transit.
- On-street parking calms traffic and reduces the off-street parking burden.
- Provide street trees (nominally 30' o.c.) in continuous trenches.
- Whenever possible, employ "green street" storm water strategies.
- Where street lighting is appropriate it should reflect neighborhood character. Balance safety with reduction of unnecessary light and glare.

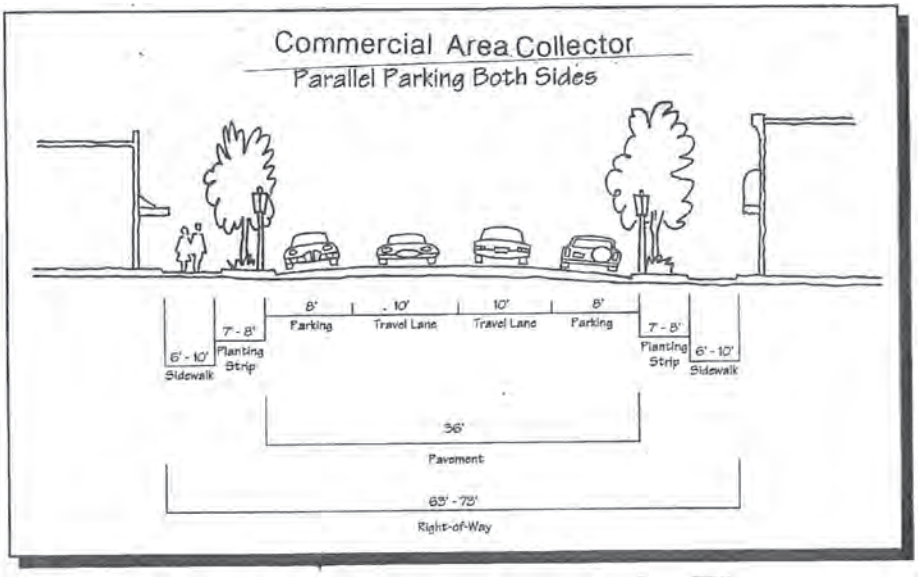
Courtesy of Clarke Caton Hintz

Links
L50
L51
L52
L53
L54



L55 Commercial Area Collector

L56 Commercial Area Collector



L57 Commercial Area Collector

Neighborhood road diet: Before

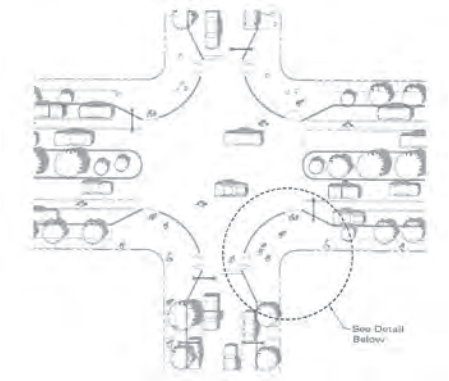
Neighborhood road diet: After

Village center road diet: Before

Village center road diet: After

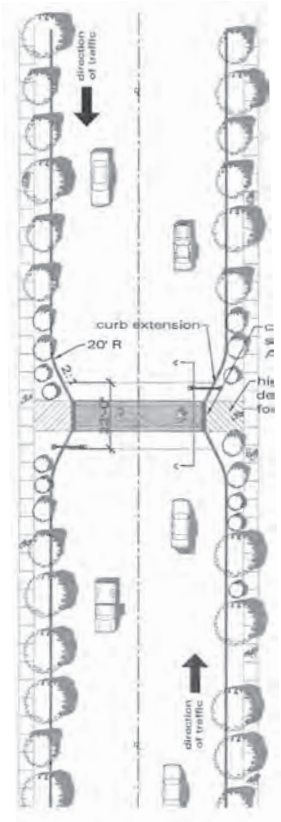
L70 Suburban road diets

Most suburban roads have been over-engineered to privilege the automobile or areas laid out in an inefficient way. In some cases, the pavement within the right-of-way can be reclaimed for landscaping, bike lanes and on-street parking. In other cases, the road can simply be re-striped, not only to make space for these amenities, but to make the road function more effectively by rationalizing movements.



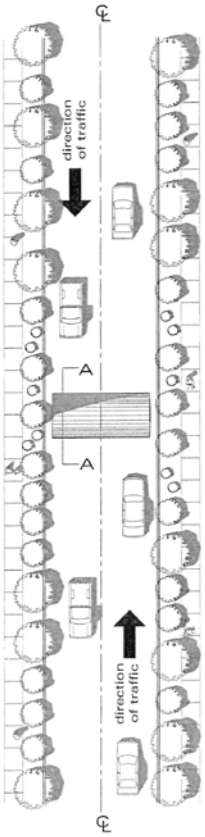
L74 Corner bulb-outs or neck-downs

To calm traffic and make intersections more pedestrian-friendly, the curbs and sidewalks can be "bumped-out" into the right of way by using the space otherwise devoted to on-street parking on the intersecting roads. This shortens crossing distances and forces cars to slow down as they negotiate narrower lanes.



L78 Mid-block crossing

To calm traffic and increase pedestrian connectivity, mid-block crossings can be clearly articulated and designed to slow traffic, especially where blocks are long. Bulb-outs in the sidewalk shorten crossing distances. Changes in pavement color and texture signal drivers that this is a pedestrian area. The crosswalk can be raised as well to act as a speed bump.



L76 Speed bump

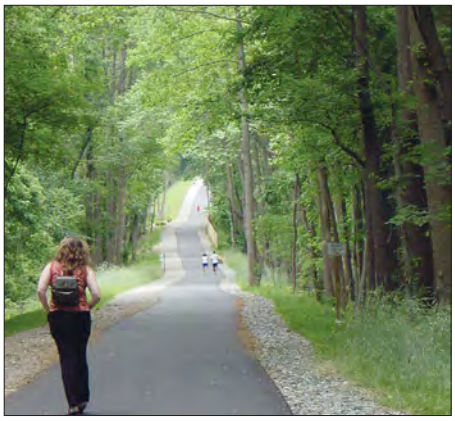
Speed bumps are raised areas that extend across the road. They should be approximately 12' wide and 3 or 4 inches high to reduce design speeds to between 15 and 20 mph.

Traffic Calming–landscaped medians and pedestrian refuges.

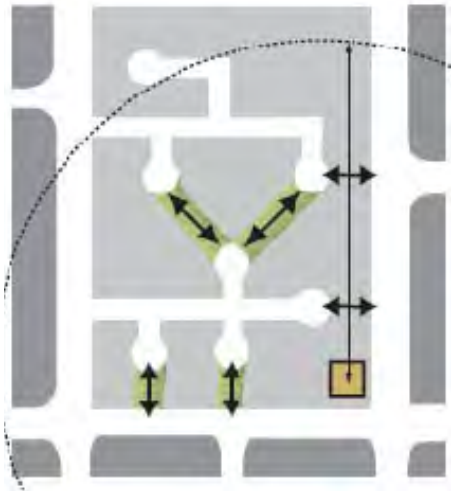
L74
L76
L78
Links

L90 Trail system

A comprehensive pedestrian and bike network includes a variety of trail types suitable for different conditions. As illustrated here, the trail and sidewalk network is continuous from city to suburb to country.



Courtesy of Clarke Caton Hintz



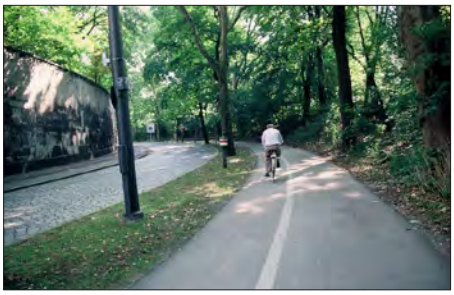
L92 Mid-block connections

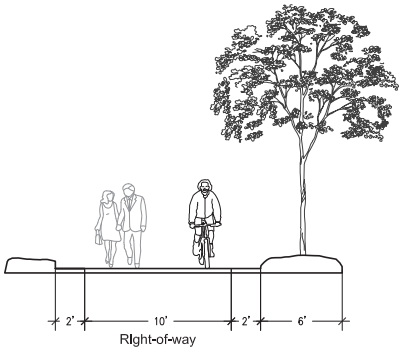
To avoid large blocks, provide mid-block pathways between parcels or through buildings in order to increase access to the neighborhood and to provide an alternative to walking on the street. Lighting and visibility should maximize pedestrian safety and comfort. In order to ensure safety, crosswalks and/or signage should indicate crossings at mid-block. Any public path of the mid-block type should have a minimum width of 18 feet.

L93 Retrofit large blocks

Retrofitting existing suburban road systems for increased connectivity is extremely challenging. Make every effort to improve pedestrian and bicycle connectivity to surrounding circulation systems. Increase connectivity for pedestrians and bikes by opening cul-de-sacs to foot and bicycle traffic.

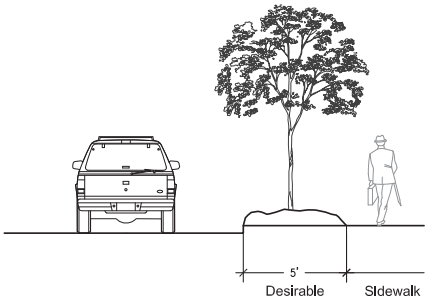
Links
L90
L92
L93





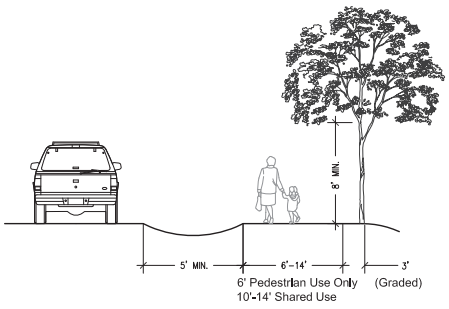
L94 Shared use path

These are designed to accommodate multiple users including walking, biking and in-line skaters: 8' minimum width, 10' width preferred, 12' width in high-use areas.



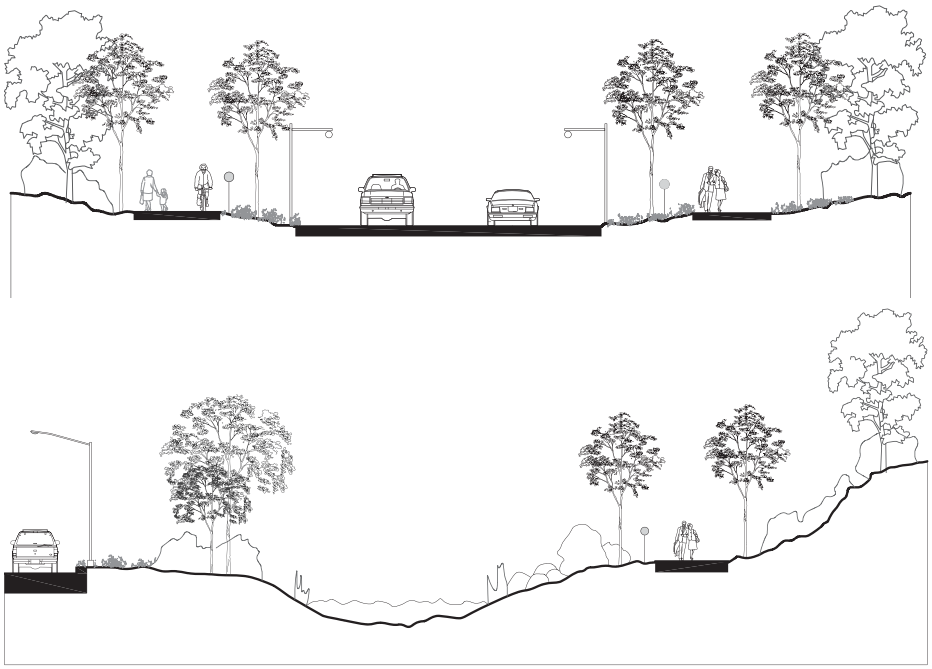
L95 Planting buffer

Where sidewalks and trails abut busy roads, a minimum 5' wide planting buffer should be used.



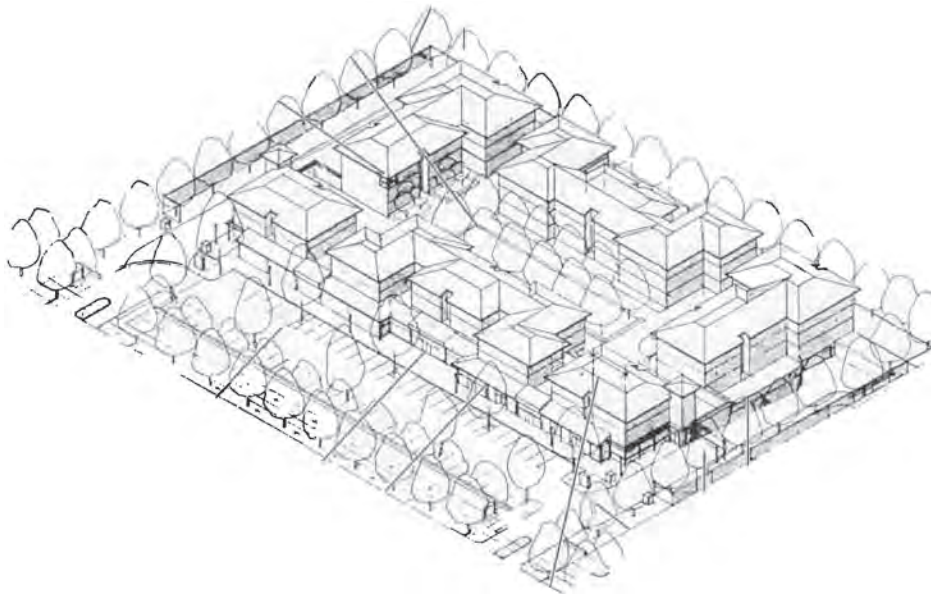
L96 Pathway separation

- 5' minimum width of separation, should include path shoulders.
- Landscaped or natural vegetation to provide buffer from noise and splash of vehicles and/or
- Drainage ditch or swale with maximum 1:3 side slopes at edge of 2' wide shoulder



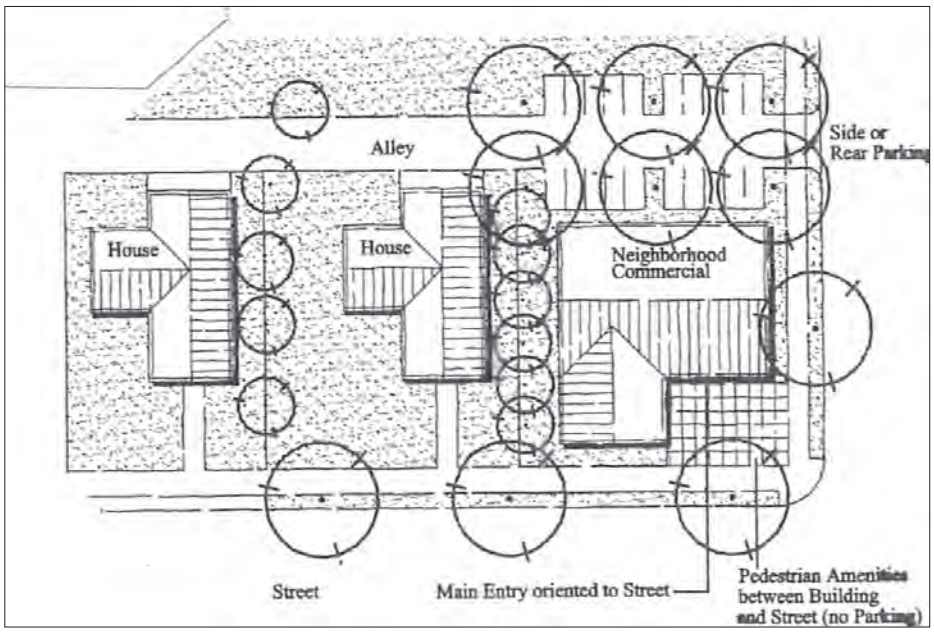
L98 Trailway separates from road network

In less dense areas where land is available, the trail network can have a changing relationship to the road which adds variety and interest to the trail experience. The additional space for landscaping adds beauty and opportunities for green infrastructure applications.



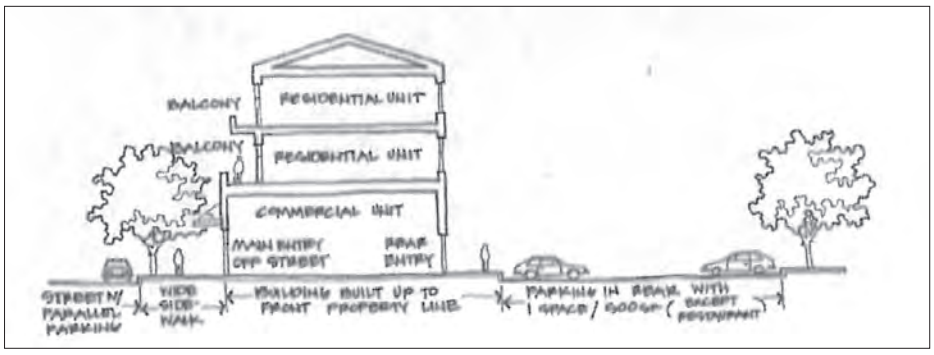
C10 Large-scale suburban mixed use block

- Single bay of parking maximum allowed in front. One tree per 8 spaces minimum. Flowering hedge along parking frontage.
- Main pedestrian entrance to residential portion of development distinguished from, but incorporated into, frontage.
- "Main Street" storefront designs and amenities (lighting, seating, landscaping)
- Building mass broken down to express individual units. (See also details CI-51 and CI-52)
- Commercial and residential access drives shared but differentiated by signs, alignment, landscaping.
- Screening and buffering required at adjacent properties.
- Common usable outdoor space required. 150 sf per dwelling unit suggested.



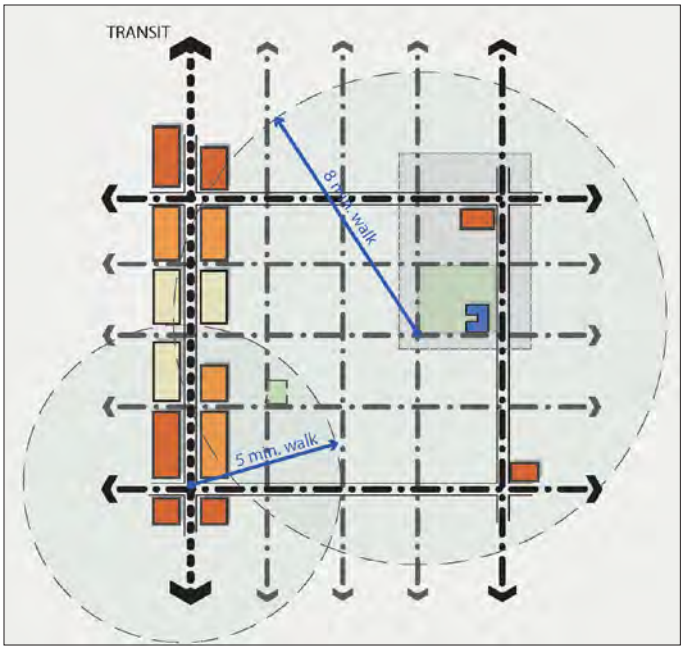
C11 Neighborhood corner commercial

A complete neighborhood includes some convenience retail within walking distance. This can be located at corners on important neighborhood roads. It can be residential in scale and character, with parking behind and some small-scale public space at the entry.



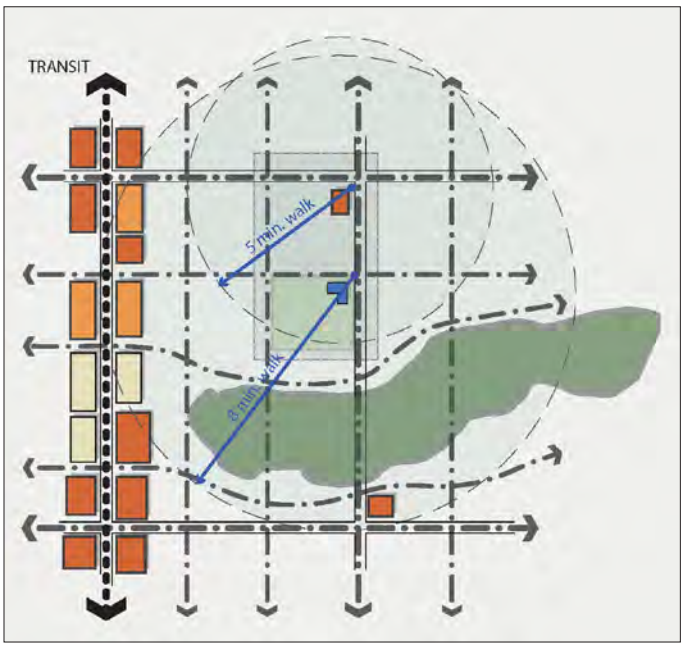
C12 Mixed-use building

Neighborhood scale mixed-use buildings can have convenience commercial uses on the ground floor with parking behind and one or two floors of apartments above.



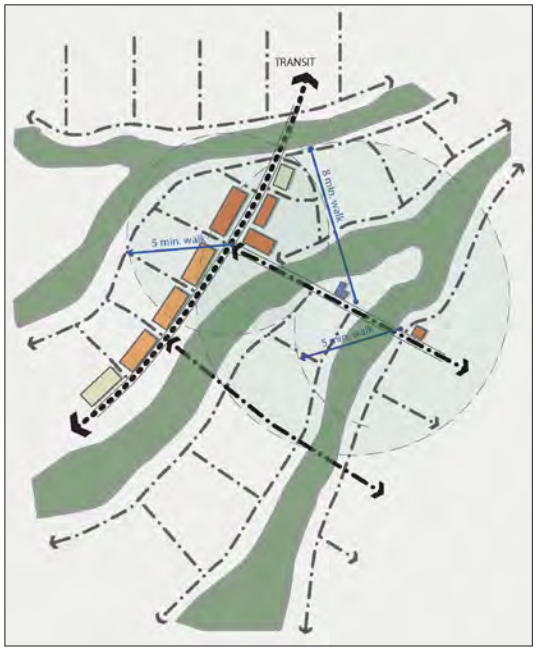
C20 Basic neighborhood form

- Significant open space amenities are located in the interior, more residential, parts of the district, using green street parkways and school sites as elements.
- Schools should be located astride green street parkways and close to interior neighborhood commercial areas.
- Green street parkways provide signature feature element for the district insuring premium value for parcels located along it and nearby.
- Main arterial roads in the district are lined with mixed use and street-friendly commercial.
- Necessary parking areas are confined to building rears to enhance pedestrian street quality and make access via transit possible.



C21 Neighborhood form accommodates natural features

- Ideally the environmental features would occupy a significant open space of the interior, more residential, parts of the district.
- Schools should be located in these central areas adjacent to the environmental resource so students can take advantage of recreational trail access and the educational advantages associated with daily exposure to natural areas.
- Parkway treatments around edges of the natural areas guarantee higher prices for parcels facing them. (See also detail C40, Frontage road).
- Main arterial roads that occur in the district are lined with mixed use and street friendly commercial.
- Necessary parking areas are confined to building rears to enhance pedestrian street quality and make access via transit possible. (See also detail N47, Mid-block green).



C22 Neighborhood form is organized around natural features

- Natural features in this type of district add value to the neighborhood.
- Parkway treatments around edges of the natural features guarantee higher prices for parcels facing the natural corridors and the single loaded parkway treatment insures that public open space stays in the public realm. (See also detail C40, Frontage road).
- Schools should be located at strategic locations in the natural systems as shown, to both provide a cultural focus for the district and contribute to the education of the students.
- Main arterial roads that occur in the district are lined with mixed use and street-friendly commercial.
- Necessary parking areas are confined to building rears to enhance pedestrian street quality and make access via transit possible.

C30 Neighborhood form Single Family

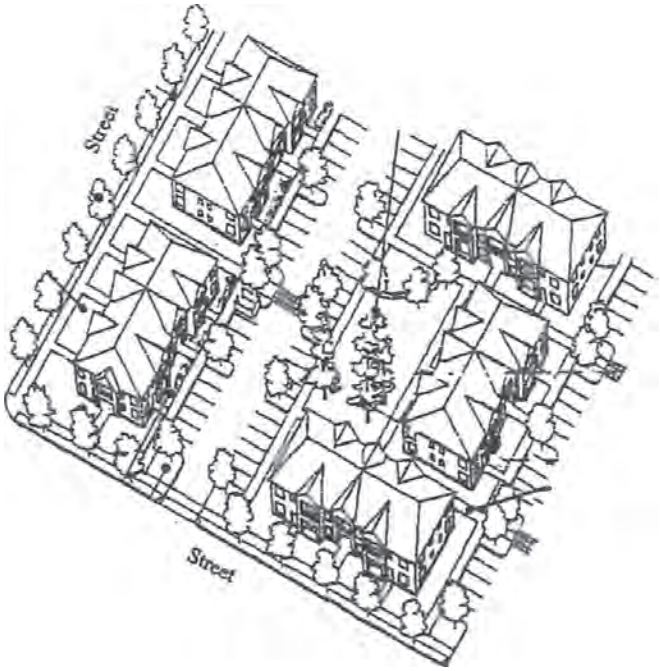
- Promote on-street parking to meet parking demand.
- Provide access to garages from mid block "alleys," if possible.
- Where garages are provided, set them back as far as possible and, in any case, behind the front façades of the houses. Driveways to garages should be no wider than 9'.
- Provide street trees at uniform intervals (30' on-center recommended).
- Sidewalks continue across intersections as highly visible cross walks.
- Traffic calm intersections (inside sidewalk "build-outs" to frame on-street parking zone).

C31 Street with single family houses

- Houses at the corners of blocks should have primary or secondary access to both streets.
- Houses should present a friendly face to the street: Primary entrances should face the street. Built-in garages should be a relatively small proportion of the building's façade.
- The fronts of houses should be located along a front set back (or "build-to" line), or within a narrow enough set back zone to establish the street as a well-defined public space.

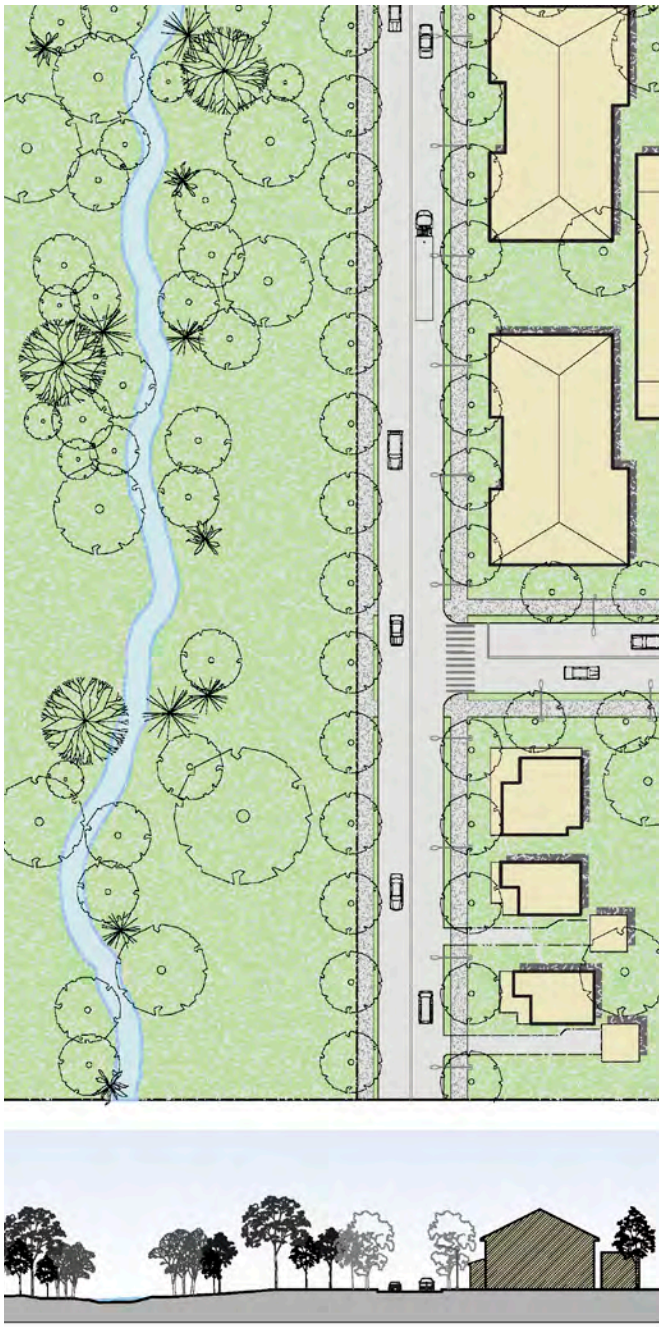
C32 Neighborhood Street Multi Family

- In no case shall parking lots front onto streets. Parking lots shall be only in the interior of the blocks. Access to parking lots and service areas shall be from secondary streets or alleys.
- Promote a diverse mix of residential building types.
- Orient principal façades of buildings towards the most important streets.
- The massing of buildings shall create a transition between buildings of different scales.



C33 Street with attached houses

- Planter strips
- Street trees
- Open front yard
- Planted area between parking and building in rear yard
- Perimeter landscaping for off-street parking
- Pathways
- Retain natural vegetation



C40 Frontage road – neighborhood edge

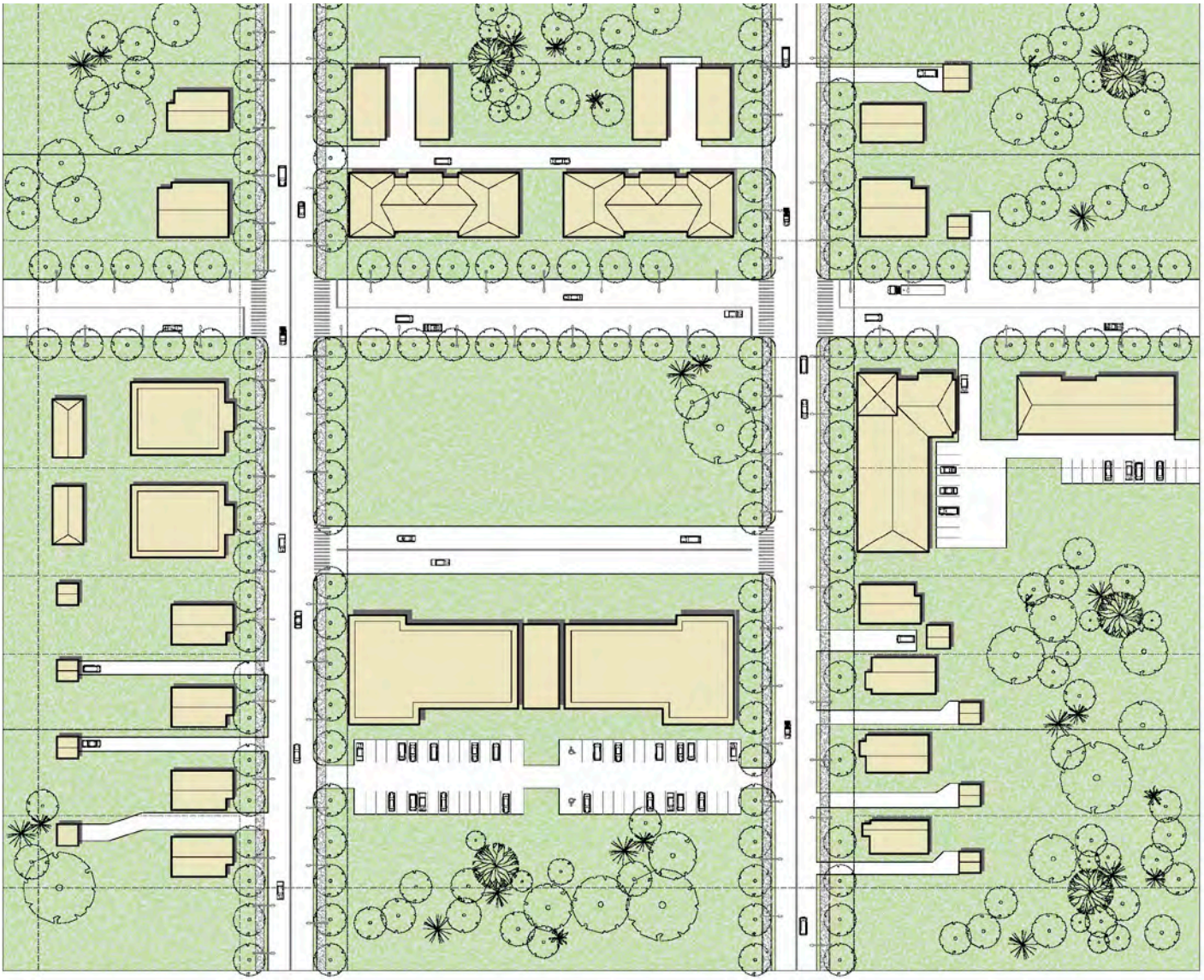
Where new neighborhoods are adjacent to conserved open spaces, a single-loaded frontage road lined with the fronts of houses and sidewalks will prevent the open space resource from becoming "privatized" in peoples' backyards.

This also affords the opportunity to build trails linking conserved open spaces on developments and public lands.

This design should be used even if the conserved space remains in private ownership and even if direct access is not permitted.

C41 Rendering of neighborhood frontage roads surrounding a natural resource corridor

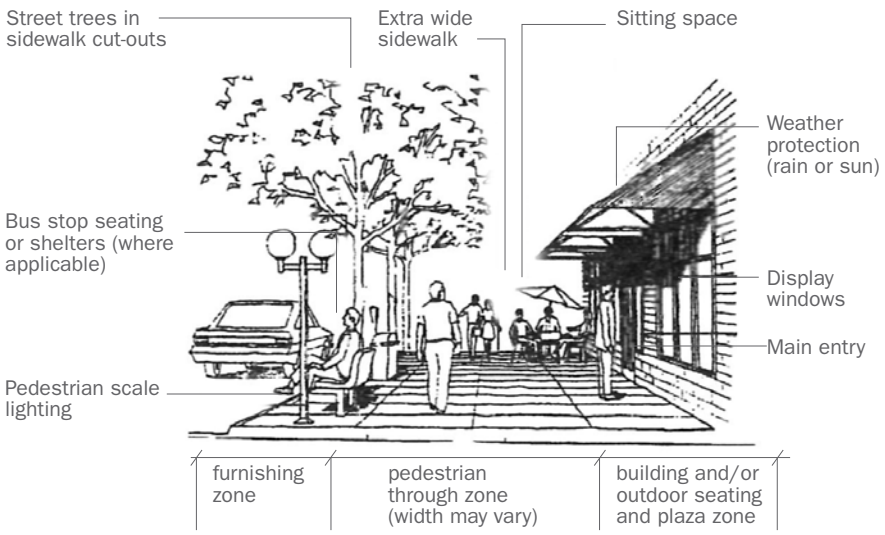
Courtesy of Google Maps



C50 Neighborhood form: open space

- Neighborhood-scale open spaces can support higher density residential building types.
- Buildings around the space do not have to be the same type, but together, they should create a legible and integrated "ensemble." Differences in scale and style should be managed creatively.
- As with residential streets elsewhere, buildings should be oriented to the public space and have a consistent relationship to the sidewalk and street.
- In no case shall parking lots front onto the public space. Parking lots shall be behind buildings or otherwise completely screened from view. Landscape buffers shall screen parking lots from side streets.
- Typically, neighborhood parks shall have streets on all sides to enable the buildings that front onto the space to have an address and entrance onto the open space.
- On-street parking along the roads defining the public space is desirable.
- All intersections shall be traffic-calmed.

Courtesy of Randall Arendt



C60 Typical Main Street

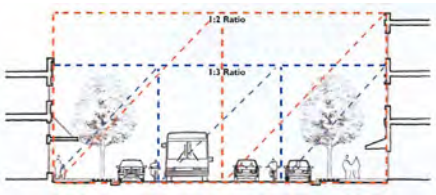
A "Main Street" environment is a lively place for pedestrian activity and interaction. It is well defined by the buildings that frame it as a place with identity. While there are many separate elements that make up the main street environment, it is the entire ensemble that makes it successful – from materials, to landscaping, to furnishings to buildings.

Each sidewalk activity takes up at least this much width:

8 ft	Transit shelter or ADA platform
5 ft	Transit stop with bench
5 ft	2-way pedestrian traffic
5 ft	Wheelchair turning area
5 ft	Planting strip (3 ft minimum)
5 ft	Outdoor dining tables
3 ft	Bench
3 ft	Window shopping
2 ft	Miscellaneous street furniture
2 ft	Shy distance from walls, poles, etc.

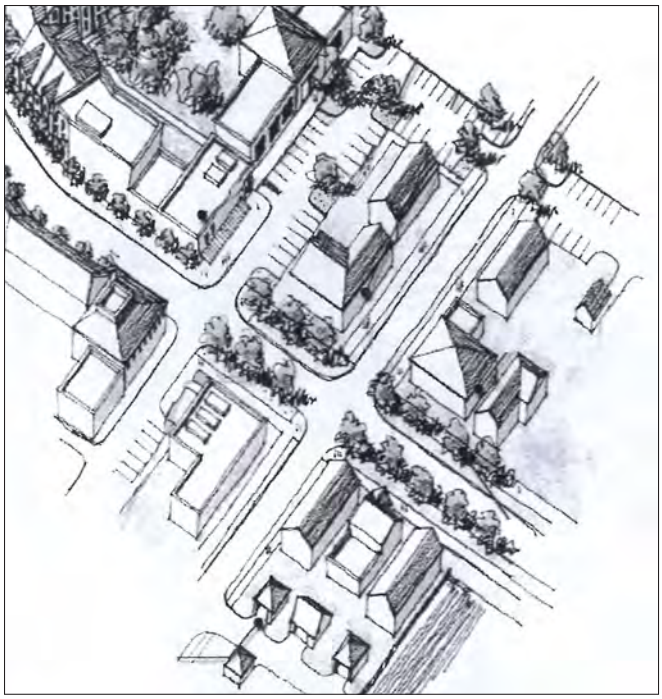
C61 Widths of sidewalk elements

Different sidewalk widths can accommodate different kinds of activities and different design elements. Where possible, car lanes can be narrowed to extend curbs and reclaim more sidewalk width. While different sidewalk elements have different width requirements, many of these dimensional requirements can, and should, overlap to create a lively place.



C63 Main street enclosure

The sense of place on Main Street will be reinforced if the space is well-proportioned. One guideline is for the heights of the buildings framing Main Street to be between 1/3 and 1/2 the distance between the buildings.

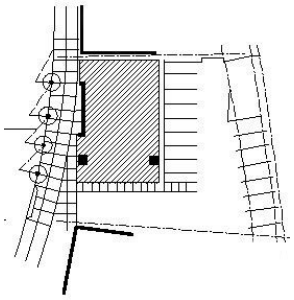


C65 Main street

"Main Street" corridors create a lively pedestrian experience at the ground floor by having all buildings present a friendly face to the street and by featuring entrances and activities at the ground floor. Buildings define the public spaces by having a clear and consistent relationship to the street and the edges of other public spaces. Other characteristics of successful Main Street Design include the following:

- Buildings are uniformly located at the edge of the sidewalk to create an uninterrupted street wall and a sense of enclosure of the space of the street. Buildings define the corners of intersections and blocks.
- On-street parking is desirable. Any off-street parking is located behind the buildings and never between the sidewalk and the building frontage. If this is not possible, parking is located to the side of the building, but is limited in length and is well screened.
- Curb cuts to parking and service areas come, wherever possible, from secondary streets or alleys.
- Primary building entrances shall have a prominent presence on major streets and public spaces.
- Where ground floor public and commercial uses are called for, the ground floors have a minimum transparency of 75%.

C66 Traditional pedestrian-oriented "main street"



C67 Preferred infill development

Site plan showing the preferred configuration for contextual infill commercial development with a pedestrian-scaled façade on the street and parking behind.

C68 Corner lot development

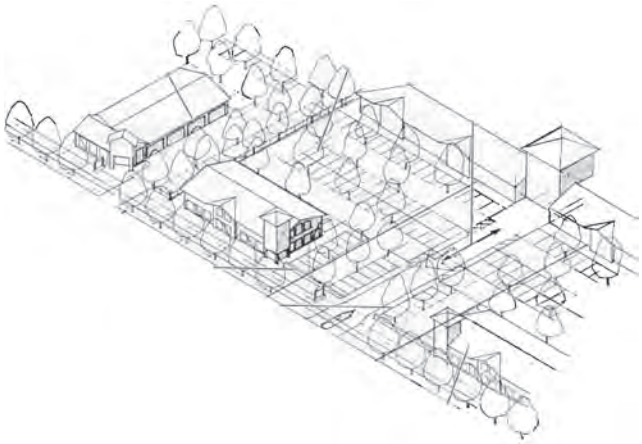
- Infill building acknowledges scale and character of the context.
- Building design acknowledges the importance of corner sites.

Images courtesy of New Jersey Office of State Planning

C70 Commercial Retail Development

Note: many of these same details apply for Large Scale Commercial Developments as described in detail M71 below

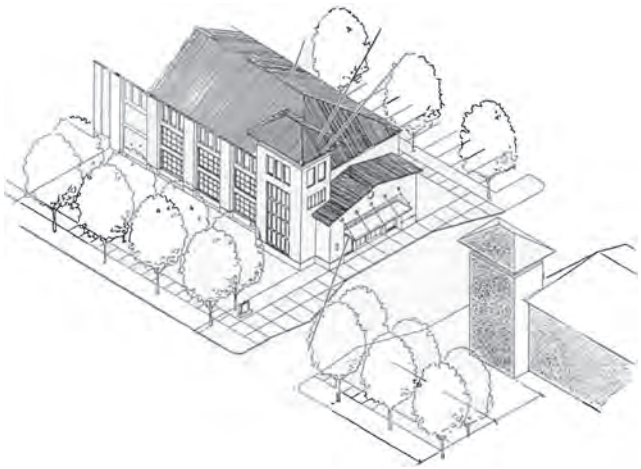
- Shopping center frontage improved with pedestrian streetscape elements such as ornamental lighting and benches.
- Long facades broken into smaller increments. (See also details D50 and D51).
- Sloped and/or parapet roofs recommended.
- Signs are an integral part of the architectural composition.
- Special taller architectural features should be located at main building entrances, entrance drives and /or other highly visible locations.
- Awnings and canopies enliven store frontage.
- Screen parking along road frontage (See also detail L42).
- 1/3 maximum "clear zone" for visibility of the frontage from road.
- Frontage to include full sidewalk and streetscaped area with generous landscape zone. Shown here is a "boulevard treatment" with 10' curbside planting strip, 6' sidewalk and 10' planting strip along parking lot.



C71 Large Scale Commercial Development

Larger-scale retail developments should have many of the same design strategies described in detail C70 for Commercial Retail Developments. In addition:

- "Green Parking Lot" standards as described in Detail N50 apply.
- "Out parcels" should be located along the street and have a "main street' orientation and character.

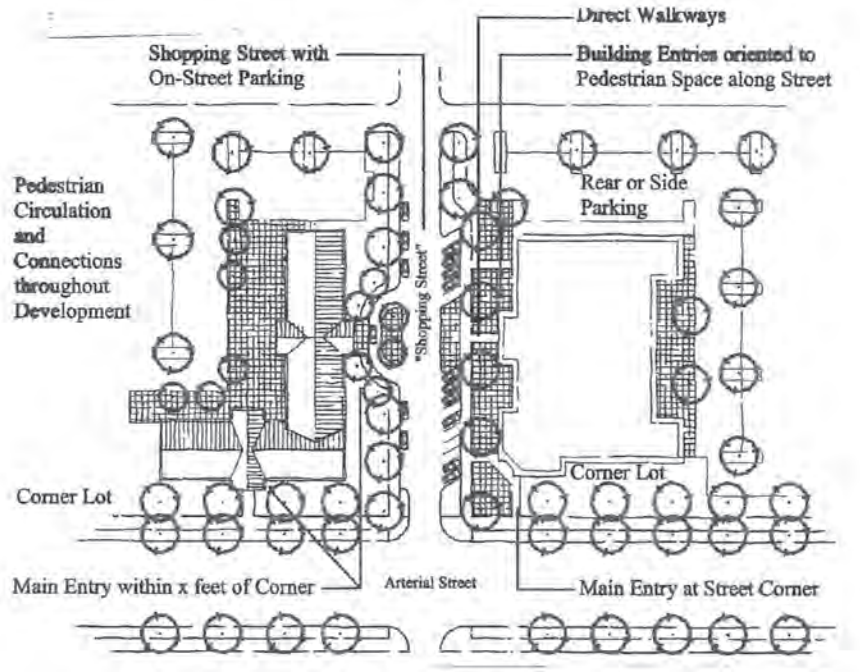


C72 Commercial Office Development

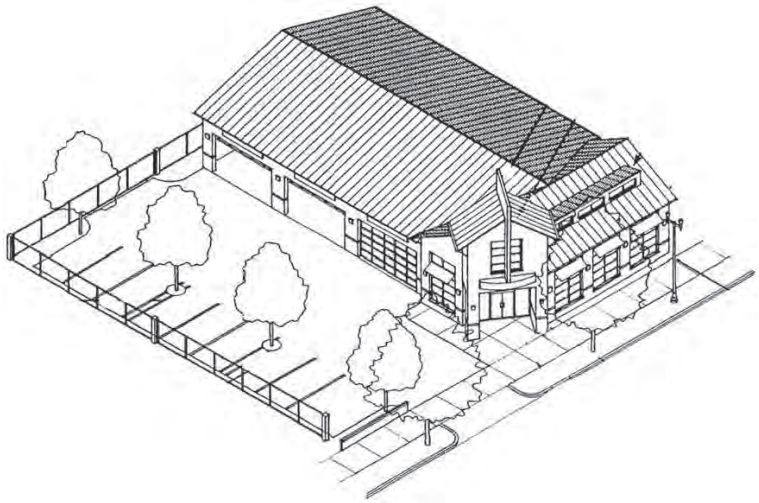
Within and at the edges of suburban centers, commercial buildings may be set back with front yards depending on the context and character of the area. However, these buildings still have a positive relationship to the public realm of the street:

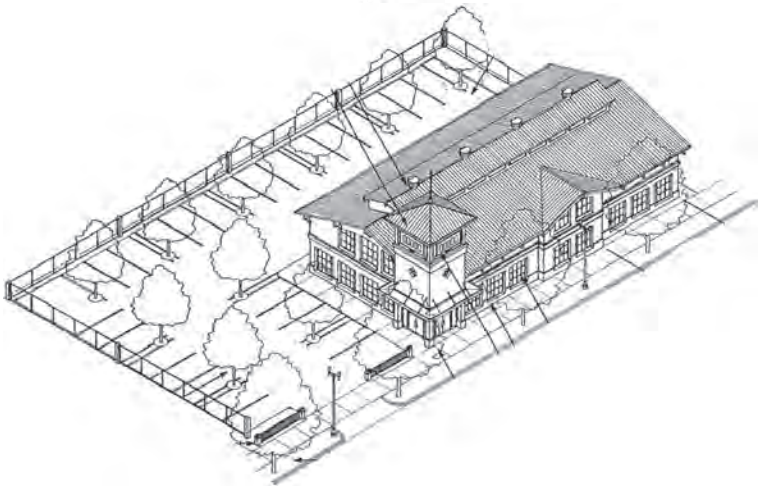
- The primary orientation of the building is towards the street.
- The front entrance is clearly articulated. Preferred entry location is from the primary street. If this is not possible, entry is from a clearly identifiable public space on the side of the building.
- Parking is behind the building. If this is not possible, parking is in a well-screened lot along the side of the building (see also Details D50 and D51).
- Landscaping along the front clearly defines the space of the street.
- Pedestrian connections lead from the sidewalk to entrances and parking.
- Important corners receive special architectural expression.

Courtesy of Randall Arendt (3)



C73 Neighborhood Commercial Corner





C74 Suburban Commercial Corner

TOOLS & ACTIONS

GOALS	TOOLS & ACTIONS	DETAIL
OVERALL OBJECTIVE Create an integrated framework of open space resources including protected resources, public open spaces, private open spaces, and green streets.		Note: For brief descriptions of these **Tools & Strategies**, see **Appendix**.
APPLICATION OF TOOLS TO THE DESIGN OBJECTIVES		
CREATE THE URBAN FOREST		
Landscape parks and plazas *Properly landscaped parks and plazas are both a community amenity and an opportunity to employ passive stormwater management strategies.*	**Planning Tools** • Comprehensive Plan and/or a separate Open Space Plan can identify locations for parks and plazas. • Area-specific plans can include public open spaces. • Capital budget can include funding for new parks and open spaces. **Regulatory Tools** • Subdivision and site-plan regulations can include required open space and parkland dedication. • Basic zoning can map park and plaza districts. • Special zoning districts can include designs and locations for parks and other open spaces. Overlay districts can include special requirements for park land or open space dedication. **Administrative Actions** • Acquire land for neighborhood parks and plazas. • Subdivision and site plan review can include standards for open space set-asides and design standards for neighborhood parks and plazas.	N31 Typical green network
Create green streets *Green streets add to the beauty of neighborhoods and can play an essential role in stormwater management and maintaining water quality.*	**Planning Tools** • Comprehensive Plan, Open Space Plan or Storm Water Plan can identify "green corridors" both for aesthetic purposes and for passive storm water management. **Regulatory Tools** • Design guidelines for municipal streets can include landscape and storm water management requirements. • Incentive zoning can be used to leverage streetscape improvements for streets abutting new developments. • Subdivision and site plan regulations to include requirements for street landscape and passive storm water management. • Special Zoning Districts can include area-specific designs for "green streets" or an area-specific storm water management strategy. **Administrative Actions** • Design review can include street design guidelines. • Subdivision and site plan review can include street design standards.	N70 Suburban green street N71 Bio-swale street edge N72 Direct the flow

GOALS	TOOLS & ACTIONS	DETAIL
CREATE LINKED OPEN SPACES		
Link protected resource areas on individual large parcels *To maintain the continuity of natural systems, protected open spaces on separate parcels must be aligned.*	**Planning Tools** • Comprehensive Plan - Resource protection section to encourage contiguous natural areas. • Open Space Plan can map out contiguous open space corridors. • Area-specific plans can map out location-specific open space and conservation strategies. **Regulatory Tools** • Subdivision and site plan regulations can influence location of conserved areas on individual parcels or subdivisions in order to facilitate connections between adjacent open space resources. Special Zoning Districts can include connections between open spaces. **Administrative Actions** • Subdivision and site plan review can influence placement of open spaces to facilitate linkages. • SEQRA (NY State): A Generic Environmental Impact Statement (GEIS) can facilitate the progressive completion of integrated open space network by establishing, in advance of actual development, the cumulative impacts and benefits of linking open spaces into a comprehensive network.	N20 Link resources on and between parcels N47 Mid-block green
Create and link parks and greenways *Open spaces should create a connected network to maximize their value as an amenity and environmental resource.*	**Planning Tools** • Comprehensive Plan Resource Protection section can include a greenway plan that links open spaces. • Capital budget can set aside funding for greenway construction and for strategic linking pieces of landscape. **Regulatory Tools** • Basic zoning can include a land use category for different kinds of open spaces including parks and greenways. • Special Zoning District can include an overlay zone that includes requirement to create new linkages between open spaces. **Administrative Actions** • Acquire lands for parks and greenways. • Work with state, county and adjacent municipalities to build greenways.	N31 Typical green network
PROTECT NATURAL AND SCENIC RESOURCES		
Create resource-specific plans and regulations *Resource-specific plans can be crafted to address a wide range of associated issues including design and overall settlement patterns.*	**Planning Tools** • Comprehensive Plan Resource Protection section can include plans targeted to specific resources including scenic and architectural resources. • Wetlands and watershed plans can include design and siting controls and prohibit development in sensitive areas. • Area-specific plans can include special policies for environmental, scenic and architectural resources in targeted locations. • Critical environmental areas can be designated on top of particular resources. **Regulatory Tools** • Basic zoning can control densities, area, bulk, setback and use to protect resources. • Special Zoning Districts can include provisions targeted at protecting particular resources. • Site plan regulations to include requirements for street landscape and passive storm water management. • Local environmental resource laws can protect wetlands, watershed (see below), groundwater, flood plain, steep slopes, view sheds, forested areas. • Subdivision and site plan regulations can require buffers, setbacks and special designs, such as Low Impact Development (LID) techniques, to protect resources. • Development design guidelines can protect neighborhood qualities and scenic resources. **Administrative Actions** • Conservation Advisory Council can provide on-going consultation on land use actions to protect resources. • SEQRA (NY State) can mandate avoidance, minimization and mitigation measures around any kind of resource and can be used to map critical environmental areas. • Acquire buildings and natural areas. • Subdivision and site plan review can include protection of architectural, scenic, or natural resources.	N40 Density on gradual slopes N41 Use high points carefully N42 Buffer N80 The house N81 Step the envelope N82 Use energy wisely
Mandate conservation subdivisions *This strategy enables the preservation and the continuity of natural systems with minimal impact to the development potential of private properties.*	**Planning Tools** • Comprehensive Plan Resource Protection Section can encourage contiguous natural areas. **Regulatory Tools** • Subdivision regulations can include provisions for conservation/cluster subdivision. **Administrative Actions** • Conservation easements and land trusts can be used to identify and protect the areas around which the conservation subdivision will be organized. • Subdivision review can be used to help delineate location and configuration of conserved area.	N10 Locate appropriate places for development N11 Typical superimposed development N12 Conservation subdivision

GOALS	TOOLS & ACTIONS	DETAIL
Protect wetlands and watersheds *Water resources are essential for environmental protection.*	**Planning Tools** • Comprehensive Plan Resource Protection section to include wetlands and watershed protection objectives. • Local wetlands plans and local watershed plans can set out targeted policies. • Critical environmental or conservation areas can be mapped over wetlands and watersheds. • Counties can create their own wetlands and watershed plans. **Regulatory Tools** • Wetlands and watershed regulations can limit the kinds and locations of uses near wetlands or within watersheds including development and site plan requirements. • Basic zoning can control bulk, area, setback, and use requirements within wetlands and watershed areas. • For wetlands, a special natural resource ordinance can be written. • Special overlay zoning districts can be mapped over water resources and include special regulations for their protection. • Subdivision and site plan regulations can include provisions for protecting wetlands and watersheds. **Administrative Actions** • For wetlands, local wetlands control commissions can review development proposals for impacts. • Conservation easements and land trusts can preserve wetland areas and critical parcels within watersheds. • SEQRA (NY State) can establish critical environmental or conservation areas and mandate avoidance, minimization and mitigation measures near wetlands and within watershed areas. • Conditional approvals near wetlands or within watershed areas can include variances and special permits pursuant to protection measures. • Subdivision and site plan review can include wetlands and watershed protection. • Counties can review development proposals near water resources for conformance with their own wetlands and watershed plans and regulations. • Inter-municipal coordination will probably be necessary for watershed planning and protection.	N42 Buffer N45 Best practice storm water management for small lots N46 Water flow N50 LID commercial applications N51 Parking lot bioswales N60 LID residential applications
Protect farmlands *Farmlands have economic, environmental, and aesthetic value for large expanses of the landscape at the urban fringe but they are also highly vulnerable to development pressure.*	**Planning Tools** • Comprehensive Plan Resource Protection and Economic Development sections can include farmland protection as an objective. • Farmland Preservation Plans can include a wide range of economic and land-use tools targeted specifically at supporting agriculture and making it more competitive. • Critical Environmental Areas (with SEQRA, NY State) can be mapped over farmlands. **Regulatory Tools** • Agricultural zoning can put limits on non-agricultural uses. • Right-to-farm laws can protect farmers from unreasonable challenges from adjacent non-farming landowners. • Incentive zoning can allow farmers flexibility on developed portions of land in return for keeping other lands in agriculture. • Basic zoning can create farming zones and disallow uses and development patterns that will create conflicts for farming. **Administrative Actions** • Local farmland policy can protect farmland by eliminating competitive disadvantages, coordinating project approvals, protecting farmers against nuisance challenges and providing tax relief. • Acquire land to be kept in farming. • SEQRA (NY State) can be used to delineate farmlands as Critical Environmental or Conservation Areas. • Conservation easements and land trusts can be used to keep land in farming. • County farmland policy can include review of development actions to assess impacts on farming.	N12 Conservation subdivision

GOALS	TOOLS & ACTIONS	DETAIL
OVERALL OBJECTIVE Maximize Connectivity and Mobility in the Landscape		L10 Basic street network L11 Network accommodates natural features L12 Network is organized around natural features L13 Street network in the landscape Note: For brief descriptions of these **Tools & Strategies**, see **Appendix**.
APPLICATION OF TOOLS TO THE DESIGN OBJECTIVES		
MAXIMIZE CONNECTIVITY		
Create a connected street network *A robust street network in development-appropriate areas distributes traffic, enables transit and supports other non-auto forms of mobility*	**Planning Tools** • Comprehensive plan can include a section on public infrastructure that includes an "official map" of full, improved network including new streets. • Comprehensive plan can include objectives related to overall network connectivity. • Capital budget can fund new connecting roads. **Regulatory Tools** • Subdivision and site plan regulations can establish connectivity and access requirements. • Municipal, county and state regulations can establish minimum requirements for site access and for block sizes. **Administrative Actions** • Subdivision and site plan review for large parcels can include issues related to overall network connectivity. • SEQRA (NY State) review can include increased connectivity as a way to mitigate traffic impacts of development • County and regional review can include impacts on connectivity and mobility.	L10 Basic street network L11 Network accommodates natural features L12 Network is organized around natural features L13 Street network in the landscape
Create new roads and connections into and between developments *New roads into and between developments can create strategic new connections in the larger street network.*	**Planning Tools** • Comprehensive plan: can include a section on public infrastructure that includes and "official map" of full, improved network including new streets across large parcels. • Capital budget can fund new connecting roads. • Area-specific plans can map new streets. • Comprehensive plan can include access standards. **Regulatory Tools** • Subdivision and site plan regulations can include requirements for numbers of points of access and can mandate cross-connections between developments. • Special Zoning Districts can include designs for street and block networks that create connectivity within and between developments and neighborhoods. **Administrative Actions** • Municipality can build strategic linking road segments. • Through SEQRA (New York State) a Generic Environmental Impact statement can facilitate the progressive completion of street networks by establishing, in advance of actual development, the cumulative impacts of multiple developments and the mitigation measures that include new connecting streets. • Subdivision and site plan review can include mandating the alignment and continuation of streets between developments. • Counties can review the impacts of multiple developments on the roadway infrastructure and establish the need for new connections between developments to mitigate those impacts.	L15 Connectivity within larger sites L16 Connectivity between sites L92 Mid-block connections L93 Retrofit large blocks

GOALS	TOOLS & ACTIONS	DETAIL
Create a trail network *Trail networks provide an additional complementary layer of pedestrian and bicycle mobility.*	**Planning Tools** • Comprehensive Plan Resource Protection section or Public Infrastructure section can include trail network as part of proposed recreational facilities. • Capital budget can fund trails. • Counties can create their own trail/greenway plans. **Regulatory Tools** • Incentive zoning can include amenity bonus to build portions of trail. • Subdivision and site plan regulations can require trails and greenways for larger sites. • Special zoning districts can include requirements for new greenways and trails. **Administrative Actions** • Conservation easements if they include public access requirement. • Purchase of Development Rights can be used to reserve land trails and greenways. • Intermunicipal and county agreements/compacts to extend trail network. • Counties and municipalities can build parks and greenways.	L90 Trail system L94 Shared use path L95 Planting buffer L96 Pathway separation L98 Trailway separates from road network
DESIGN STREETS FOR PEOPLE		
Design for pedestrians and bicycles *Providing alternatives to the automobile is essential for community quality of life.*	**Planning Tools** • Bikeway and sidewalk network plans, as either a section of, or in addition to, the Comprehensive Plan, can layout sidewalk routes and bike routes as well as describe bicycle facilities. • Comprehensive Plan Public Infrastructure section can include description of municipal roads. • Area-specific plans can have place-specific designs to promote pedestrian-friendly and bicycle-friendly streets. **Regulatory Tools** • Subdivision and site plan regulations can include street design standards for bikeways and sidewalks. • Facilities can be part of the code that deals with street design and infrastructure. Design requirements for municipal streets to include design standards for bikeways and sidewalks. • Special zoning districts can include area-specific standards for street design that include bicycle and pedestrian accommodations. **Administrative Actions** • Subdivision and site plan review can include review for adequacy of bike and pedestrian facilities.	L50 Typical residential collector L51 Residential street sections L52 Residential street sections L53 Residential street sections L54 Residential street sections L55 Commercial street sections L56 Commercial street sections L57 Commercial street sections
Design beautiful streets *Streets should be designed with the same level of interest as other important public spaces.*	**Planning Tools** • Comprehensive Plan Public Infrastructure section can include design objectives for municipal roads. • Area-specific plans can have special location-specific street design guidelines to accomplish community goals **Regulatory Tools** • Subdivision and site plan regulations to include design standards for materials, lighting, landscaping. • Design requirements for municipal streets in the code can include design standards for materials, lighting, landscaping. • Incentive zoning can include streetscape improvements by developers. **Administrative Actions** • Subdivision and site plan review can include review of design standards and guidelines for streets within the development. • Design review can include conformance with street design standards as well as building design.	L60 Streetscape design L61 Streetscape design L62 Streetscape design L51 Residential street sections L57 Commercial street sections

GOALS	TOOLS & ACTIONS	DETAIL
MANAGE THE AUTOMOBILE		
Deal with parking creatively *Flexible requirements, by reducing the burden for off-street parking, can help promote pedestrian-oriented environments.*	**Planning Tools** • Municipal parking plans for centers and more intensively developed mixed-use areas, can be done as either a section of, or in addition to, the comprehensive plan. • Capital budgets can include funds for new parking lots to consolidate parking, new metering systems. • Area-specific plans can promote flexible parking requirements. **Regulatory Tools** • Zoning can include reduced overall parking ratios and flexible and creative parking strategies such as shared parking, remote parking, and reductions for proximity to transit. • Design guidelines for placement and design of parking lots. • Subdivision regulations can include flexible parking requirements. • Site plan regulations can include flexible parking requirements. **Administrative Actions** • Design review can include issues related to parking design and placement. • Parking districts and parking authorities can manage parking comprehensively through pricing and metering strategies, in-lieu-of fees, and by building facilities for parking. • Subdivision and site plan review typically includes parking design and placement.	L30 Parking lot placement–preferred L31 Parking lot placement–acceptable L32 Parking lot placement–not acceptable L33 Parking lot retro-fit L40 Parking partially beneath L41 Parking structure partially beneath L42 Parking lot screening
Accommodate transit *Providing transit can help promote pedestrian-oriented environments and create equity.*	**Planning Tools** • Comprehensive Plan Public Infrastructure section to include locations and types of transportation facilities. • County and municipal transportation plans can include routes and facilities for a wide variety of transit options. **Regulatory Tools** • Subdivision and site plan regulations can include accommodations for transit. • Design standards for transit facilities can be part of the code that deals with street design and infrastructure. **Administrative Actions** • Subdivision and site plan review can include requirements for accommodating transit. • Design review can include guidelines for transit facilities. • SEQRA (NY State): Traffic mitigation measures for new larger subdivisions and site plans can include new transportation services such as shuttles or require that new transportation services be accommodated within the development	L25 Suburban Bus Stop
Traffic calm roads *Can help create pedestrian-oriented environments.*	**Planning Tools** • Traffic calming plans, as either a section of, or in addition to, the Comprehensive Plan, can be done at the scale of counties, municipalities or neighborhoods. • Capital budget can fund traffic calming interventions. • Comprehensive Plan Public Infrastructure section can promote traffic calming designs for municipal roads. • Area-Specific Plans can include traffic calming objectives. **Regulatory Tools** • Design requirements for municipal streets can include design standards for traffic calming. • Subdivision regulations to include traffic calming designs for internal roads and for points of access. **Administrative Actions** • Counties and municipalities can build traffic-calming interventions. • SEQRA (NY State): Traffic mitigation measures for new larger subdivisions and site plans can include traffic-calming interventions.	L70 Road diet L74 Traffic calming – intersections L76 Traffic calming L98 Trail separates from road network

GOALS	TOOLS & ACTIONS	DETAIL
OVERALL OBJECTIVE Create complete communities that accommodate the full range of housing, shopping, employment and open space amenities.		Note: For brief descriptions of these **Tools & Strategies**, see **Appendix**.
APPLICATION OF TOOLS TO THE DESIGN OBJECTIVES		
CREATE DIVERSITY OF LAND USES		
Integrate neighborhood civic uses *Community services should be within walking distance for residents.*	**Planning Tools** • Comprehensive Plan Economic Development section can locate public facilities. • Capital budget can set aside funds to purchase and/or build facilities. • Area-specific plans can locate facilities. **Regulatory Tools** • Incentive zoning can allow density for developers in return for contribution to building an amenity or facility. • Basic zoning can map areas for public facilities. • Special zoning districts can include requirements for public facilities. **Administrative Actions** • Acquisition to set land aside for facilities. • Municipalities can seek public funding to build facilities themselves.	C20 Basic neighborhood form (includes park) C21 Neighborhood accommodates natural features (includes park and greenway) C22 Neighborhood conforms to natural features (includes parks and greenways)
Create diversity of housing types *Diversity of housing provides affordable opportunities for diverse populations and local workforce.*	**Planning Tools** • Comprehensive Plan Economic Development section to explain existing and future housing needs including affordable housing. • Area-specific plans can include provisions for diversity of housing types and affordable housing provisions. • Municipalities can create an affordable housing plan. **Regulatory Tools** • Basic zoning can create a variety of districts with different densities and lot sizes to promote diverse housing types. • Special zoning can include incentive zoning for housing diversity and affordability. • Accessory housing regulations can be used to create diversity and affordability. **Administrative Actions** • Municipalities can create a housing authority to promote housing diversity or build affordable housing. • States, counties and municipalities can create subsidies and tax abatements for affordable housing.	C32 Neighborhood form–multi-family C40 Neighborhood edge C50 Neighborhood park
Provide for flexible use/mixed-use *Diversity of land uses enables flexible work and commuting patterns.*	**Planning Tools** • Comprehensive Plan Economic Development section to include this in specific policies and strategies for improving local economy. **Regulatory Tools** • Basic zoning regulations can enable and manage home occupations/live-work. • Diversity of district types can create varied development patterns. • Special zoning districts can include provisions for mixed-use. **Administrative Actions** • Municipalities can create redevelopment authorities that can encourage different forms of economic development.	C10 Neighborhood retail corner C11 Neighborhood commercial corner C12 Mixed-use building

GOALS	TOOLS & ACTIONS	DETAIL
CREATE BEAUTIFUL NEIGHBORHOODS		
Orient buildings to streets *Buildings relate to the street in such a way that they clearly define the space of the street and activate the street.*	**Planning Tools** • Comprehensive Plan Public Infrastructure section can include descriptions of municipal roads that include design considerations. • Area-specific plans can describe street types and development types that support special neighborhood design objectives for particular places. **Regulatory Tools** • Basic zoning through the schedule of bulk, yard and setback requirements can insure that buildings are sited correctly in relationship to the street. • Subdivision and site plan regulations can establish the relationship of buildings to streets as well as include street design requirements. Design guidelines for new infill development can control orientation and placement of buildings. • Special zoning districts can include designs for street and block patterns and character. **Administrative Tools** • Design review can address issues beyond the height and setback requirements in the zoning such as façade and entrance design. • Subdivision and site plan review allows considerable latitude for the municipality to review the relationship of buildings to streets. • SEQRA (NY State) mitigation measures for new larger subdivisions and site plans can include landscape and design conditions. • County review of site plans and subdivisions for adequacy of infrastructure can address design issues as well as capacity issues.	C30 Neighborhood form–single family C31 Single family neighborhood – massing C32 Neighborhood form – multi-family C33 Multi-family neighborhood – massing C40 Neighborhood edge C41 Neighborhood edge – building form C50 Neighborhood park C73 Neighborhood commercial corner C74 Suburban commercial corner
Promote context-sensitive design *Massing and design guidelines insure that new buildings relate in scale and character to their context.*	**Planning Tools** • Comprehensive Plan Resource Protection section to consider neighborhood design as part of policies protecting man-made resources. • Area-specific plans can encourage context-sensitive design. **Regulatory Tools** • Basic zoning, through the schedule of bulk, yard and setback requirements, can insure that buildings respond to context. Design guidelines for new infill development can insure that new buildings are placed in correct relationship to existing buildings. • Subdivision and site plan regulations can include controls for transition to existing context. **Administrative Tools** • Design review can include guidelines for building character. • Subdivision and site plan review can include consideration of relationships to context such as access and orientation. • SEQRA (NY State) mitigation measures for new larger subdivisions and site plans can include landscape and design conditions.	C65 Main street C66 Traditional pedestrian-oriented "main street" C67 Preferred infill development C68 Corner-lot development C73 Neighborhood commercial corner
CREATE PEDESTRIAN-ORIENTED COMMERCIAL AREAS		
Promote mixed-use buildings *Mixed-use buildings enliven down towns and create opportunities for creative parking solutions.*	**Planning Tools** • Comprehensive Plan Economic Development section to consider mixed use as a specific policy for improving the local economy. • Area specific plans can describe commercial areas in detail. **Regulatory Tools** • Basic zoning schedule of permitted uses can include mixed-use buildings and reduced parking ratios in mixed-use areas. • Special zoning districts can describe form and uses for mixed-use buildings in existing or planned centers. Incentive zoning can allow density or lower parking requirements in return for mixed-use development **Administrative Actions** • Conditional approvals and special permits can be granted for mixed use buildings.	C10 Neighborhood retail corner C11 Neighborhood commercial corner C12 Mixed-use building
Promote infill development *New infill development creates a compact, walkable environment.*	**Planning Tools** • Comprehensive Plan Economic Development section can consider infill development as a specific policy for improving the local economy. • Area specific plans can target particular parts of the municipality for infill redevelopment. **Regulatory Tools** • Design guidelines for new infill development to control orientation and design of buildings for new infill developments. • Basic zoning can facilitate new development on constrained infill sites through special site area, height, bulk and setback requirements and reduced parking requirements. • Special zoning districts, such as traditional neighborhood design overlay districts can describe form and placement of new infill developments. **Administrative Actions** • Design review can insure that the character of new infill developments is compatible with adjacent structures. • SEQRA mitigation requirements can include impacts of new development on existing neighborhoods.	C67 Preferred infill development C68 Corner-lot development

GOALS	TOOLS & ACTIONS	DETAIL
Create "main street" environments *Commercial centers are walkable and pedestrian-oriented.*	**Planning Tools** • Comprehensive Plan Economic Development section to consider present and future locations for commercial facilities and the designs of commercial centers as a specific policy for improving the local economy. • Area-specific plans can be created for commercial centers. **Regulatory Tools** • Site plan regulations with building placement and street design requirements can promote "main street" environments. • Design guidelines can include requirements for design and placement of parking, street design, building placement and orientation. Basic zoning can include special districts for "main street" areas that include creative parking regulations, along with the schedule of area and bulk requirements that create pedestrian-oriented places. • Incentive zoning can promote streetscape improvements by developers. • Special zoning such as traditional neighborhood design overlay districts can create a comprehensive, pedestrian-oriented environment. **Administrative Actions** • Design review can include guidelines for pedestrian amenities and building placement. • SEQRA (NY State) allows a Generic Environmental Impact Statement (GEIS) to coordinate progressive redevelopment of commercial corridors and commercial centers. • Municipal parking management.	C60 Typical main street C61 Widths of sidewalk elements C63 Main street enclosure C65 Main street C66 Traditional pedestrian-oriented "main street" C73 Neighborhood commercial corner

	DESCRIPTION	PURPOSE	ISSUES CAPACITY REQUIREMENTS	ADVANTAGES
PLANNING TOOLS				
Municipal Comprehensive Plans	Written and graphic materials that identify the goals, policies, standards, and techniques for the immediate and long-term protection, growth and enhancement of a locality.	To create a blueprint for future development and preservation of a community. It is the policy foundation of for the community and is the key support for zoning and other land use policies.	For the plan to remain relevant, it must be re-visited on an on-going basis. CAPACITY REQUIREMENTS: • To have community support, it must be developed through a robust public process.	The comprehensive plan can be broadly conceived, touching on almost every issue including both regulatory (types of zoning tools) and non-regulatory techniques (such as acquisition.)
Area Specific Plans	These plans are created for a particular part of the built or natural landscape. A special set of policies is developed and then supported by special zoning or other land use laws such as design guidelines, site plan or subdivision regulations, and other policies related to governance. In NY State, a Generic Environmental Impact Statement (GEIS) can be used to incentivize conformance to the area-specific objectives.	To create a land use framework for a part of the community that is so complex or of particular importance that it cannot be addressed adequately by the broader, municipal-wide comprehensive plan or through one or more zoning districts.	Needs to be supported by a well-coordinated set of policies, regulations and administration. CAPACITY REQUIREMENTS: • Additional administrative burden to manage a subset of particular land use policies and associated regulations.	It is possible to tailor land use policies to the particular goals and objectives of an important part of the community.
Aesthetic and Visual Resource Plans • Viewshed protection • Historic district designation • Identification and study of unique aesthetic resources	Plans devoted to aesthetic and visual resources in the built and natural environment including architectural character (historic buildings, landmarks) and landscape features (distinctive views of hills, mountains and rivers) and the prevention of visual blight such as "strip" architecture and signage along commercial corridors.	To protect community character by preventing inappropriate design and preserve existing visual assets.	It may be difficult to establish design and aesthetic standards that cannot be challenged as arbitrary and capricious. CAPACITY REQUIREMENTS: • Additional administrative burden because discretionary review will be necessary. New review board may be required.	Can protect and enhance community character beyond the protections afforded by the comprehensive plan and zoning.
Farmland Planning • Farmland policy • Elimination of competitive disadvantages • Steer development away through zoning, TDR, PDR	Comprehensive plans consider agricultural land uses. They take into consideration applicable county agricultural and farmland protection plans created by county agricultural and farmland protection board, include fact-based findings, outline a strategy and implementation plan, and appoint agricultural representative to the local planning board.	To preserve the cultural, visual, environmental and economic contributions of agriculture.	Additional administrative burden especially if a Farmland Protection Board is empanelled. CAPACITY REQUIREMENTS: • Technical study required to support policies with fact-based findings. • Cooperation among multiple land owners is likely; possibly between municipalities as well.	Can be used to leverage inter-municipal cooperation. State policies and resources can be accessed to help the local community
Capital Budget	The annual summary of past and expected non-operating expenditures such as new buildings and equipment, infrastructure, and open space acquisition.	To allocate resources and establish spending priorities.	Difficult to define exact costs for investments. CAPACITY REQUIREMENTS: • Political opposition to supporting new spending with taxes.	It is possible to shape the extent and character of future growth without directly engaging individual property rights.
Thematic Plans • Open Space Plan • Transportation Plan • Greenway/bikeway/sidewalk plans	Plans that are devoted to a particular issue such as open space, transportation, greenway/bikeway/sidewalk plans or housing.	Establish a comprehensive approach to a particular set of goals and objectives.	Plans may need to address actions by other entities and agencies besides those responsible for land use planning. CAPACITY REQUIREMENTS: • To be comprehensive, these plans must be coordinated with the rest of the elements of the comprehensive plan.	Creates the context for actions on individual parcels. Can be used to establish municipality-wide priorities.
Infrastructure Plans • Road • Water • Sewer	Plans that determine the extent and character of the services or accommodations required for development.	To manage the extent of future growth. To mitigate traffic and enhance mobility. To manage resources such as water.	Infrastructure plans need to be supported by technical studies. Typically, state and county level coordination is required. Investments may be costly.	The legislature can shape the extent and character of future growth without directly engaging individual property rights. State and county resources are available for municipal service extensions. Used to leverage inter-municipal/county/state - level cooperation.

		DESCRIPTION	PURPOSE	ISSUES CAPACITY REQUIREMENTS	ADVANTAGES
LOCAL ENVIRONMENTAL RESOURCE PLANS	**Watershed and Wetlands Planning**	Broadly conceived plans applicable to an area defined by an aquatic resource. Can be implemented at the county level: • Small watershed protection districts • County lake protection and rehabilitation districts • Soil and water conservation districts At the municipal level: • Zoning can help, but is limited to, boundaries of zoning districts. • Natural resource ordinances: floodplain regulations, coastal zone protection, sedimentation and erosion controls. • Comprehensive plans can designate watershed areas and establish conservation overlay districts with detailed standards or conservation easements.	To maintain water quality. Coordinate the various state and federal regulations governing water resources. To reestablish natural functions such as habitat, biodiversity and stormwater management.	Restricting time of use and development can be both politically and economically challenging. CAPACITY REQUIREMENTS: • Multi-jurisdictional cooperation likely. • Cooperation among multiple land owners likely. • Extensive, time consuming research required.	Can be the basis for more comprehensive planning of larger landscapes. Can be used to leverage inter-municipal cooperation. Can be used to attract county and state resources.
	Resource-specific plans/ Natural resource inventory • Watershed (*see above*) • Groundwater protection • Floodplain regulations • Steep slope, sedimentation, erosion • Tree preservation, vegetation removal • Viewshed protection • Habitat protection	Enabled by the ability of the Comprehensive Plan to address resource protection, these are plans that are targeted to specific resources.	To identify critical issues and unique opportunities around resource protection that are particular to a given location or community.	CAPACITY REQUIREMENTS: • More detailed and targeted planning must be accompanied by more detailed technical studies, documentation and data. • Cooperation among multiple land owners is likely. • Multi-jurisdictional cooperation is likely.	Can be used to shape location and character of future development. Protect resources beyond what is typically provided for in the comprehensive plan.
	Critical Environmental Area designation	Identification and delineation of an area with fragile or threatened resources such as habitat, steep slopes, mature wooded areas, wetlands and watersheds.	Protect natural resources and control development.	CAPACITY REQUIREMENTS: • Cooperation among multiple land owners is likely. • Technical studies are required to support policies with fact-based findings.	Provides a comprehensive approach for larger areas. Can protect large areas with higher review standards for development and land use.

		DESCRIPTION	PURPOSE	ISSUES CAPACITY REQUIREMENTS	ADVANTAGES
REGULATORY TOOLS					
ZONING- BASIC	**Accessory use regulations**	Accessory uses are uses that are on the same lot as the principle use and are subordinate, incidental to and customarily found in connection with the principal use. Accessory uses can be left undefined beyond "customary incidental and subordinate", or permitted and prohibited uses can be listed, or allowed by special permit.	To provide some flexibility in use of property.	The flexibility provided here can be abused to over-expand the intensity of use or establish an inappropriate use. It may be difficult to enforce accessory use regulations against educational or religious institutions.	Provides flexibility of use of the property and can help create complete mixed use neighborhoods. By enabling mixed-use, can reduce traffic related to commuting.
	Home occupation regulations	Business that is performed out of the residence. In the case of home occupations, special regulations related to floor area, parking, numbers of employees, carrying or selling merchandise can be used to further limit intensity and impacts.	To enable and regulate what has historically been permitted and is within the bundle of rights that comes with home ownership.	*(see Accessory Use)* As with accessory uses, language must be specific or regulations will be difficult to enforce.	Provides flexibility of use of the property and can help create complete mixed use neighborhoods. By enabling mixed-use, can reduce congestion related to commuting.
	Special permit uses	Reviewing board can attach conditions. Referral to County or regional planning agency can be required. SEQRA (NY STATE) can be in play. Area variance can be part of review.	To allow enough flexibility to achieve diversity of uses while ensuring compatibility.	Where authority to grant special permit is given to the board, specific standards required. Where legislative body retains authority, legislature must be careful to not act capriciously. Conditions must be based in zoning.	Provides flexibility. Can be linked to concessions.
	Accessory Housing ordinanaces	A second residential unit within and subordinate to an existing single family home. Designed to be complete; usually has separate access. Usually managed through a special permit process. Approval can be based on a wide variety of criteria: eligibility of applicants or occupants, size, location or design of unit, duration of permit or saturation within a given area, or parking, water/sewage, or additional health and safety provisions. Conditions designed to lessen impacts (traffic, parking, aesthetics) generally upheld.	To provide a source of revenue for homeowners while providing additional housing opportunities for members of the community, especially those with limited incomes.	Political challenge to create support for neighborhood intensification. CAPACITY REQUIREMENTS: • Technical studies required to support the plan. • On-going oversight may be required to insure enforcement.	Can create a diversity of housing stock to meet a wide variety of community needs over time and contribute to making complete neighborhoods.
ZONING – ADVANCED	**Overlay zones** • Development districts • Conservation districts	Additional provisions on top of existing zoning. Administrative Tools • Can be linked to incentives • Can include Traditional Neighborhood Design (TND) strategies • Can include scenic and aesthetic resources	Leave underlying zoning as is but provide additional provisions usually to protect a natural resource or promote a particular kind of development.	Provisions must be specific. Environmental review (SEQRA in NY State) may be required. CAPACITY REQUIREMENTS: • Additional administrative burdens . • If design guidelines are involved, need to develop guidelines and create design review process. • Likely to involve participation and cooperation among multiple land-owners.	Broadly applicable, and can incorporate a wide variety of tools to promote goals: environmental strategies, innovative zoning such as floating zones, special permits, incentive zoning, cluster, special site plan or subdivision regs. Especially useful for promoting incremental change or completion of existing centers. Can overlap municipal boundaries. Could be used at the scale of the larger landscape to protect some resources.

		DESCRIPTION	PURPOSE	ISSUES CAPACITY REQUIREMENTS	ADVANTAGES
ZONING – ADVANCED (CONTINUED)	**Floating zones**	A set of use-specific zoning regulations that is not mapped until an applicant comes forward with a proposal for a site that meets the criteria set out in the regulations.	To facilitate development of a use that the community wants to encourage. Add flexibility to enable zoning to accommodate new land uses.	Specific requirements especially in regard to size needed to establish where it can "land." Usually more intensive so requirements need to protect potential adjacent property owners. Applicants need to invest a lot to demonstrate impacts and accommodations. CAPACITY REQUIREMENTS: • Additional administrative burdens. • If design guidelines are involved, need to develop guidelines and create design review process.	Flexibility, both for community and the market response. Signals community's desire to encourage/accommodate particular kinds of land uses.
	Conservation subdivision/ Cluster development	Zoning that provides for a subdivison layout that conserves natural and scenic qualities of open lands. Overall development yield remains un-changed.	To promote concentration of development on one part of the site to preserve open space and reduce infrastructure costs.	Specific guidelines needed to establish applicability. CAPACITY REQUIREMENTS: • Determination of density yield can be time consuming and costly.	A lot of flexibility: applicability by zone, by area, by site for particular features, by certain state purposes: by development or land use type, can be mandatory or optional.
	Incentive zoning For: • Infrastructure • Conservation • Housing • Farmland preservation • Community benefits	Community benefits or cash are provided by the developer in return for increased development over base densities granted by municipality.	Leverage community control over land-use to advance physical, cultural and social objectives in accordance with the comprehensive plan.	The community must accept higher densities and understand impacts. CAPACITY REQUIREMENTS: • Technical studies may be needed to calibrate rough proportionality of benefits to impacts.	Successfully used to generate affordable housing. Incentives can also be leveraged to create other community benefits including streetscape improvements or open space amenities. Less opposition from developers because it is voluntary. Can be used to address district-wide needs.
	Agricultural zoning *(see Farmland Planning, above, and Farmland Policy, below)*	District that prohibits, or subjects to conditions and limitations, non-agricultural uses. Permits use accessory to farming – usually for large lots – 25 to 100 acres.	Protect and promote farming in areas with prime soils where farming is still a viable part of local economy, principally by stemming market pressures for other uses and maintaining contiguous land areas large enough for farming.	Over time, flexibility is needed as agricultural markets change and this may be difficult to manage. Special permit uses, which provide some flexibility, can gradually erode integrity of agricultural area. Economic benefits both to landowners (land value, tax assessment) and community (tax revenue, net cost to service) need to be quantified. Political challenges of restricting development potential for land owners. CAPACITY REQUIREMENTS: • Cooperation among landowners likely. • Cooperation may have to be inter-municipal.	Complementary to a larger "smart growth" pattern that directs development to designated growth areas. More beneficial to local economy/fiscal health than sprawl, which is more infrastructure- and service-intensive. Can protect local open space natural resources from impacts of development.

		DESCRIPTION	PURPOSE	ISSUES CAPACITY REQUIREMENTS	ADVANTAGES
ZONING – ADVANCED (CONTINUED)	**Subdivision regulations** • Conservation subdivision (*see above*)	Regulations that control the way in which a single, large parcel is going to be subdivided for multiple landowners. For NY State, a Generic Environmental Impact Statement (GEIS) can help expedite review of conforming design. SEQRA (NY State) declination required. County review may be required.	To go beyond zoning to address environmental and traffic consequences, unsightly design. Can consist of more or less detailed standards. Can require open space or fee-in-lieu of open space. Clustering can be offered, sometimes required.	Does not include architectural or design landscape architecture review. Does not affect land use mix or densities (which would be in zoning). CAPACITY REQUIREMENTS: • Need to have technical studies to establish specific standards for open space.	Can influence neighborhood design. Can include standards for connectivity and response to environmental constraints. Can include aesthetic considerations. When coordinated with other developments , can increase overall level of road-network connectivity in a larger area.
	Site plan regulations	To control development on a single parcel that would escape subdivision review. Especially important for commercial or industrial developments or for residential developments with multiple structures. Can include aesthetic controls. County and regional review may be required if near municipal boundary, county, state highway or park, state or county public building site.	To go beyond zoning to address environmental and traffic consequences, unsightly design. Can have more or less detailed standards. Can require open space or fee-in-lieu of open space. Clustering can be offered, sometimes required.	Specific standards needed	Can influence neighborhood design. Can include standards for connectivity and response to environmental constraints. Can include aesthetic considerations. When coordinated with other developments , can increase over-all level of road-network connectivity in a larger area.
	Planned Unit Development (PUD)	PUD signifies the several techniques for providing for flexible development on large parcels or, less typically, for several owners of medium sized lots to consolidate. Usually, underlying zoning stays in place. Administrative Tools • Can provide incentives • Can encourage consolidation	Provide flexibility in design and land uses for large lot development.	Similar issues to Floating Zone. Specifications for eligible sites need to be specific; impacts need to be anticipated.	Provides flexibility in design and use mix (add retail to a residential development or vice versa). Can include provisions for services, open space, community facilities, designs.

		DESCRIPTION	PURPOSE	ISSUES CAPACITY REQUIREMENTS	ADVANTAGES
ENVIRONMENTAL AND AESTHETIC REGULATIONS	**Wetlands protection**	Laws can address wetlands, wetlands buffer areas and the kinds of uses that can occur adjacent to the wetlands and buffers. Laws are primarily state and federal.	Maintain water quality Manage stormwater Mitigate pollution	If the municipality adds its own wetlands regulations it must also assume the technical and administrative burdens.	Can be used to attract state and federal resources. Municipalities can add their own, more restrictive regulations: can protect smaller wetlands, can expand buffer area and expand controls on use, design and approvals. Can be part of a more comprehensive "smart growth" strategy for mapping a larger critical environmental or conservation area.
	Watershed protection	Laws, usually based in local zoning, devoted to implementing federal, state, county or local watershed plans.	To maintain water quality. Coordinate the various state and federal regulations governing water resources. To reestablish natural functions such as habitat, biodiversity and stormwater management.	Detailed technical studies are required to map watershed functions. Scale and scope of interventions can be very large and therefore difficult to enforce and monitor.	Can be used to leverage comprehensive planning among landowners as well as inter-municipal coordination.
	Local resource-specific regulations For: • Groundwater protection • Floodplain regulations • Steep slope, sedimentation, erosion • Tree preservation, vegetation removal • Viewshed protection • Habitat protection	Regulations targeting the protection of particular resources. This may include regulations for floodplains, steep slopes, sedimentation, erosion, tree preservation, vegetation removal, viewshed protection, habitat protection and groundwater protection (in addition to wetlands and watershed protection plans above).	To protect resources that the community fears will be negatively affected by development otherwise permitted under zoning.	Empirical studies are required to support regulations. Local environmental laws for some issues (wetlands, erosion, siting of waste management facilities) must be coordinated with state statutes.	Can be used to influence the location and quality of development.
	Aesthetic regulations • Design guidelines (see below) • Roadway design guidelines • Neighborhood character	A set of regulations that addresses the aesthetic qualities of buildings and landscapes. Related to this are sign regulations and tree preservation laws. An architectural review board is created with either advisory authority of the ability to approve, disapprove or conditionally approve new construction.	To prevent unattractive or out-of-place developments and to protect the existing aesthetic qualities of neighborhoods, corridors or landscape viewsheds/view corridors.	Discretionary design review can be contentious unless supported by design guidelines that are specific and supported by documentation of local aesthetic assets. (Sign regulations and true preservation laws can be enforced through standards that are specific enough that administrative, non-discretionary review is possible.)	Can prevent visual blight and design that is non-contextual by providing a level of regulation that goes beyond what zoning can achieve through height, bulk, setback and coverage requirements.

		DESCRIPTION	PURPOSE	ISSUES CAPACITY REQUIREMENTS	ADVANTAGES
ADMINISTRATIVE ACTIONS					
SEQRA (NY STATE ONLY)	**General**	The body of laws and procedures that requires local agencies, when reviewing development projects, adopting plans and establishing programs, to prepare an environmental impact statement for actions that may have an adverse impact on the environment.	To protect and increase the understanding of the ecological systems and the natural, human and community resources important to the people of the state.	Consideration of environmental impacts must be comprehensive and supported by objective findings.	Can be broadly conceived to address a wide variety of community interests and objectives.
	Mitigation	Any of the actions taken to minimize adverse impacts.	To minimize environmental impacts.	Mitigation measures must be linked and proportionate to the established impacts.	Mitigation measures can be broadly conceived to include, for example, limited lot sizes, imposition of conservation easements landscaping standards and even architectural standards. For a development project, financial burdens of mitigation measures are borne by applicant.
	Cumulative impact	Procedure by which a lead agency can consider the impacts of any one project in conjunction with those of other projects under review or planned for the area.	To consider the cumulative impacts of several projects.	In the absence of a comprehensive plan or Generic Environmental Impact Statement (GEIS), it is difficult to assess impacts. Potentially redundant and uncoordinated data gathering can be costly. May be difficult to coordinate timing and substance of the impact assessment. CAPACITY REQUIREMENTS: • Complex to administer. • Technical studies required. • Coordination among multiple land owners required.	Enables design and management of a more complex area for objectives that can only be achieved by coordinating initiatives on multiple properties.
	Generic Environmental Impact Statement (GEIS)	A broader and more general environmental impact statement that sets forth development standards and review thresholds for future developments, usually for a larger or more complicated area.	Allow for more efficient and cost-effective environmental review of future developments.	Because it is not as detailed as typical EIS, careful consideration is required of how large an area to study, how long a time period to consider, and what data to gather and analyze. CAPACITY REQUIREMENTS: • On-going administrative burden as developments take place. • Technical studies required. • Coordination among multiple land owners required.	By exempting future projects, there is a huge incentive for developers to conform with the GEIS plan to save the costs and time of an individual EIS. Can be a useful tool for comprehensive, long-term planning and implementation over a large or complex geography. A portion of the cost of preparing the GEIS can be placed on developers.
	Critical environmental areas	A specific geographical area designated by a state or local agency as having exceptional or unique environmental characteristics.	To protect a natural area by requiring subsequent site-specific projects and other actions in the area to be reviewed more carefully for potential impacts.	To adequately protect the resource, it needs to be supplemented by appropriate land use controls and other policies, such as a wetlands law or conservation zoning district. CAPACITY REQUIREMENTS: • Technical study required to establish extent and need of area. • Administrative burden of supplementary land use controls.	Controls can be broadly conceived to include, for example, architectural standards and view corridors from scenic roads.

		DESCRIPTION	PURPOSE	ISSUES CAPACITY REQUIREMENTS	ADVANTAGES
CONDITIONAL APPROVALS	**Expedited review**	Approval procdures are streamlined conditioned on the applicant conforming with specific municipal policies and mitigation of impacts. Site plan and subdivision regulations can require that impacts be documented in maps, drawings, photographs. Approval of site plans and subdivisions as well as the granting of special permits and variances, can be conditional on demonstrating conformance with policies and regulations. If there is a significant impact, mitigation can be required under environmental review authority.	To facilitate the review process for projects that meet the goals and objectives of the Comprehensive Plan and other policies.	Requirements for approval must be as specific as possible and well documented so that otherwise findings are "clear and convincing." The process will not be able to withstand challenges that it is arbitrary or exceeds the authority of the local legislative body.	Enables discretionary review around matters/issues such as aesthetics that may not be easily addressed through administrative review of specific standards. Can be used to incentivize desired development.
	Variances	Allowance to use a property in a way that does not comply with the literal requirements of the zoning ordinance, usually on issues of area and use.	To allow flexibility in application of the law or relief from some provisions of the law.	If variances are granted too readily, and without a basis in rigorous findings, variances will undermine the legislative authority of zoning.	Provides the municipality with some measure of discretionary power over development. Allows for some flexibility in development.
	Design review	Municipalities can adopt design review laws for the purpose of controlling community appearance. Municipalities may establish an architectural review board to administer design standards.	Promote development that supports community character beyond what can be described in zoning.	It may be difficult to establish design and aesthetic standards that cannot be challenged as arbitrary and capricious. CAPACITY REQUIREMENTS: • Additional administrative burden because discretionary review will be necessary.	Enables some measure of discretionary judgment and control by the community as to whether a particular development is designed appropriately.
	Special use permits	Authorization of a particular use, otherwise not allowed "as-of-right" based on conditions to assure that neighborhood is not adversely affected. The permit is attached not to the applicant but to the ownership of the land. Standards related to potential impacts guide issuance of special use permits.	To allow flexibility in land-use patterns.	If standards are in the zoning law, they must be very specific. If legislative body retains special permit authority, standards are not required but legislature must not act capriciously.	Can help create complete communities by allowing compatible uses in the same district where they would otherwise be prohibited.
Purchase of Development Rights (PDR)		Development rights are severed from the property and purchased by a public entity or land is acquired outright. Municipalities and counties can use operating revenue, bonds or state and federal funds to purchase land or development rights. Localities can establish a trust fund to purchase development rights. Conservation Advisory Councils can prioritize lands to be purchased. A land trust can be created to purchase conservation easements.	To stop development in targeted preservation or conservation areas.	Public entity is responsible for policing and maintaining property. Except where an incentive can be created for a developer to purchase the development rights, public funds must be used, which can involve using tax revenues or public debt.	If the land is purchased it gives the public entity complete control of the property to be used as the municipality sees fit (park, open space, facility siting, etc.). It is less complex to administer than a TDR program.

	DESCRIPTION	PURPOSE	ISSUES CAPACITY REQUIREMENTS	ADVANTAGES
Transfer of Development Rights (TDR)	Development rights are transferred from a sending area where development is being controlled, to a receiving area – a place where development is desirable. TDR programs establish some method for determining the value of the transferred rights so that the land owner in the sending area can be fairly compensated by developers in the receiving area who will pay for the rights to build at densities higher than what they are allowed under the base zoning. Must establish appropriateness of restrictive development in the sending area and the capacity and ability to manage impacts in the receiving area. A Generic Environmental Impact Statement (GEIS) (NY State) for the receiving area is required.	To move growth from areas to be protected to designated growth areas in a way that compensates land owners through a private market transaction. To create a market-based mechanism for compensating landowners in preservation areas for the value of their land to prevent sprawl.	Mandatory TDR programs including those that depend on reducing, through zoning, the development potential on the sending area parcels, is politically unpopular. Can be difficult to find receiving area to accept density. GEIS and other studies are required that can be costly and time-consuming. CAPACITY REQUIREMENTS: • There are administrative burdens associated with maintaining the program, including the operation of a TDR bank, which can greatly increase the viability of the program. • Calibrating the value of the development rights so that the transaction is desirable is an extremely complex exercise. • Cooperation among multiple land owners required.	Enables the real estate market to move development to appropriate locations by engaging private market forces, compensating landowners in preservation areas without expending funds to purchase development rights.
Conservation easements and land trusts	Voluntary agreement between landowner and municipality to restrict management, development or use of land to preserve resource, view sheds, ecosystems, farmland/forest land, open space. Can permit access. May be donated or sold; tax reduction possible. Land trust can be vehicle to buy, hold, enforce easements.	To preserve or conserve the scenic, cultural, environmental or architectural condition of property by restricting use. Can also be used to create public access.	May be difficult to insist the owner maintain easement in a particular way. Make sure there are no outstanding liens, mortgages, etc. Appraisal for tax deduction purposes may be hard to fix. Access is typically not part of it. Public access must be linked to easement purpose.	Can be coupled with purchase of development rights (farmland). Can save local government the cost and administrative burden of holding and maintaining easement. In coordination with other initiatives, can be used to create a larger greenway/bikeway network.
AGRICULTURAL PROTECTION **Farmland policy** • Eliminating competitive disadvantages • Coordinated project approvals in agricultural areas (NY State) • PDR and TDR (*see above*) • EIS (*see above*)	Comprehensive set of policies to support agriculture including: • Lowering of property tax assessments for farmlands. • "Right to farm" laws to protect farmers from neighbors' nuisance suits. • Special approval process to evaluate how new development will effect farm operations.	To preserve the cultural, visual, environmental and economic contributions of agriculture by making agriculture more competitive and protecting agriculture from encroachment.	Communities are not mandated to preserve agricultural land and so community interest and willingness are required.	Can address issues beyond those that can be dealt with through land-use regulations.
Conservation Advisory Council and Natural Resource Inventory	Administrative body created by local legislatures to advise on the development, management and protection of local natural resources.	To inventory/study and protect local natural resources. CAC can become a Conservation Board with power to review development proposals, assess impacts. Can help with open space part of comprehensive plan. Can advise in regard to techniques: acquisition, cluster, overlay, critical environmental area designation, help with mitigation strategies.	Only advisory. To be effective, careful coordination and cooperation from other entities is required. CAPACITY REQUIREMENTS: • Natural resource inventory requires time, energy and resources, especially for data gathering. • Burden of new administrative body.	If supported by the local legislature and other administrative entities, CACs and conservation boards can play a large role in shaping policy in the comprehensive plan, prioritizing areas for protection/acquisition, developing new zoning and design guidelines.

		DESCRIPTION	PURPOSE	ISSUES CAPACITY REQUIREMENTS	ADVANTAGES
INTERMUNICIPAL AGREEMENTS	**Inter-Municipal Agreements**	A cooperative contractual arrangement between two or more municipalities. Administrative tools • Adopt compatible comprehensive plans and zoning. • Adopt compatible plans for resource protection – wetlands, aquifer, watershed, viewshed. • Local governments can establish joint trades and commissions.	To effect control over issues (economic, environmental) that extend beyond municipal borders. To limit impacts between adjacent communities. To qualify for incentives or funding otherwise not available. Economies of scale – share costs of technical studies as well as inspection and enforcement officers.	They can only go so far in binding discussions of future local legislative bodies. Each municipality must take the appropriate legislative actions separately.	Enables smart growth at the scale of the larger landscape. Addresses issues that extend beyond municipal boundaries.
	Local and county agreements	An agreement between a local government and county government for county government to provide certain ministerial functions (help prepare local land use regulations, help with adopting comprehensive and other kinds of plans). Counties have the authority to adopt their own plans, create boards and commissions, invest in and manage infrastructure. For local and county agreements, both entities must adopt a written agreement. Counties adopt land use plans, review and comment on certain local land use actions including subdivision applications and septic and sewer projects. Establish and manage water and sewer districts; construct and manage infrastructure such as roads, bridges, sewer and water facilities, build and maintain other public facilities (parks, greenways).	Help provide support for communities without resources for planning. Coordinate planning around issues larger than the municipality.	County resources may themselves be limited. In the case of local and county agreements, county's authority is advisory only so that local authority is not compromised. Relies on continued political support.	Enables communities to coordinate their actions on larger issues such as economic development, natural resource protection and affordable housing.
	Compacts	An agreement among multiple communities to develop a shared plan for a larger area, usually defined by the extent of some shared resource. Participating communities adopt the regional plan and develop local plans that are in conformance with the larger plan. The compact is administered by a council or other administrative entity established by the state legislature.	To coordinate planning among multiple communities and counties at the scale of a region or sub-region, often defined by some shared resource.	Participation is voluntary. Beyond adoption of a local plan that is accepted by the entity administering the compact, local land use decisions remain unconstrained and these may not support the objectives of the larger plan.	Promotes communication and cooperation among communities, enabling a collective and coordinated approach to challenges that go beyond municipal boundaries. Participation enables access to state resources to develop plans as well as other incentives. Participation obligates the state to abide by local community plan.

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