Parcel 33 - 43

Capitalize on the Site

33 Shape buildings in response to natural features and phenomena.

Connect the Flows

34 Maintain flow through large parcels.

35 Use lanes to increase access.

Layer the Systems

36 Minimize hard surfaces.

37 Layer living space within each parcel.

38 Layer living and working.

Create a Centre

39 Provide a front door on the street.

An Economy of Means

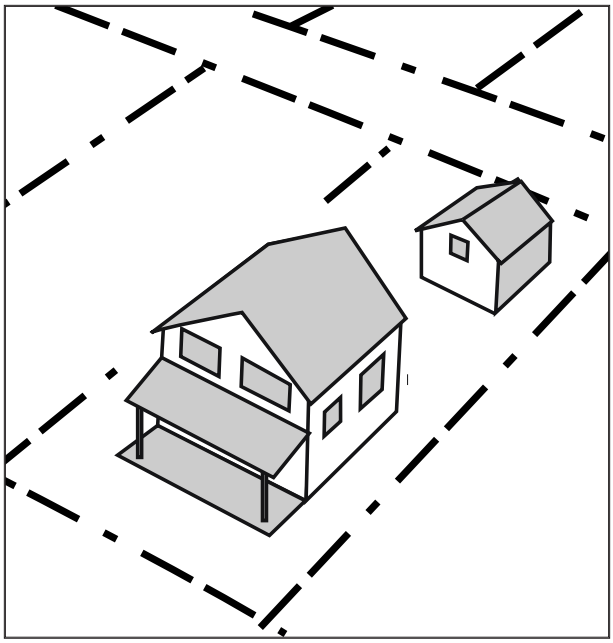
40 Design smart parcels.

41 Provide a variety of housing types.

42 Provide semi-private open space for each home.

43 Create organic unity.

The parcel is the smallest increment of development. However, what happens at the scale of the individual house and yard has important social, economic and environmental implications for the rest of the district. The recent (post-1950s) emphasis on the automobile has resulted in a whole new set of dimensions that demand ever-wider parcels to accommodate driveways and garages. Wider individual parcels mean less density in the aggregate, meaning more expensive infrastructure per individual parcel serviced. It also translates into a context that becomes, over time, so car dependent that even the simplest of everyday needs cannot be satisfied without a car.



capitalize on the site

Related Charrette Strategies
C1; K2; M1; N1; N4; O1; P3

Related Guidelines
3; 27; 36; 40; 43.1

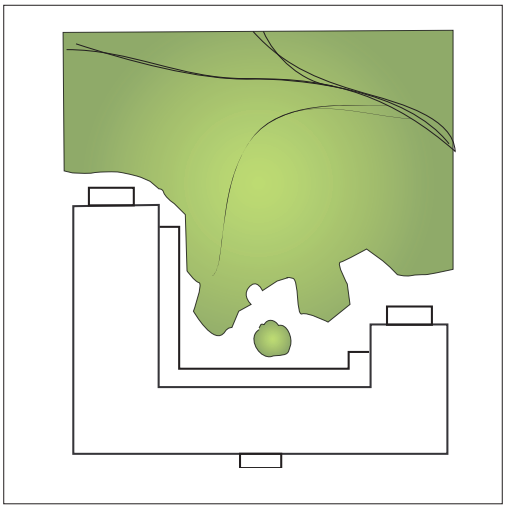
33 Shape and place buildings in response to natural features and phenomena.

"The image of these houses that integrate the wind, aspire to the lightness of air, and bear on the tree of their impossible growth a nest all ready to fly away." Gaston Bachelard, The Poetics of Space, 1964.

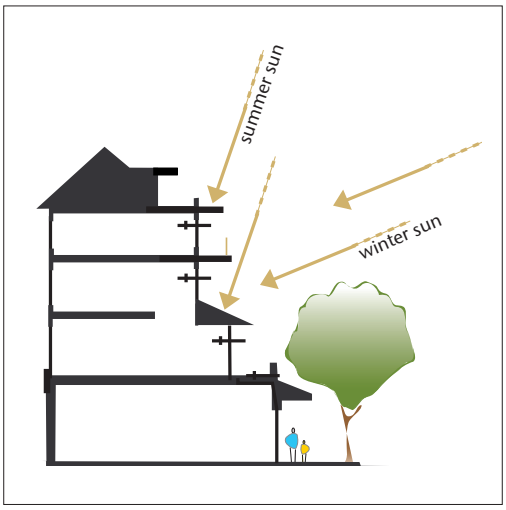
Increased density need not sacrifice natural features. Carefully articulated and placed, buildings can add to the appeal of a place while they heighten the impact of natural features. Carefully placed buildings can also utilize topography and solar orientation to aid in heating and cooling. Capitalize on the site by considerately situating higher-density buildings where residents may take advantage of the benefits provided by natural features. Ensure that siting, massing, or orientation does not unduly compromise views and landmarks.

PASSIVE SOLAR GAIN

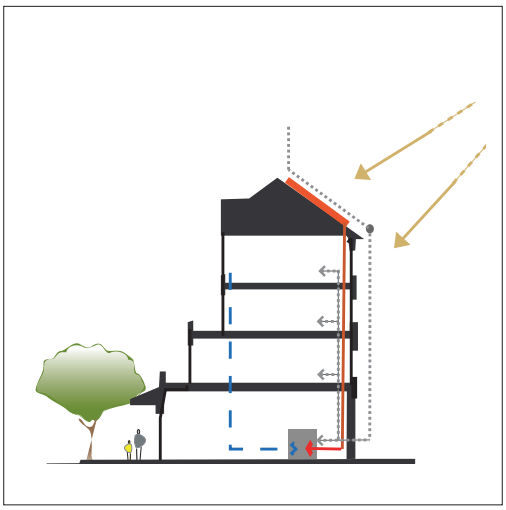
Buildings incorporating windows that are high in heat transmissivity can significantly reduce annual operating energy costs. Combined with daylight controls (e.g., light shelves, awnings, etc.), total annual energy savings can be further increased (by up to 40% over buildings without these features) (Cole et al., SF - pp. 6-14).



33.1 Articulate the Plan
Articulate large buildings in response to a natural edge (such as that of a forest or riparian buffer zone). The articulated plan allows the natural edge to penetrate into the parcel, and it also provides multiple opportunities for viewing the landscape.



33.2 Step the Envelope
Stepping the envelope and/or dramatically articulating the façade 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 to stay in contact with both nature and their community below. Use façades that help to frame a view and that are part of a street wall.



3.33 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 infrastrcture in order to reduce energy demand and save life-cycle costs.

FURTHER RESEARCH/POLICY

BC Ministries Responsible: Employment and Investment and Finance and Corporate Relations, *Performance Targets for Pilot Projects – Green Buildings Program.*

Cole et al., *City of Santa Monica Green Building Design and Construction Guidelines.*

City of New York Department of Design and Construction, *High Performance Building Guidelines* http://www.nyc.gov/html/ddc/html/highperf.html

34 Maintain flow through large parcels.

"An invisible landscape conditions the visible one; everything that moves in the sunlight is driven by the lapping wave enclosed beneath the rock's calcareous sky." Italo Calvino, Invisible Cities, 1972.

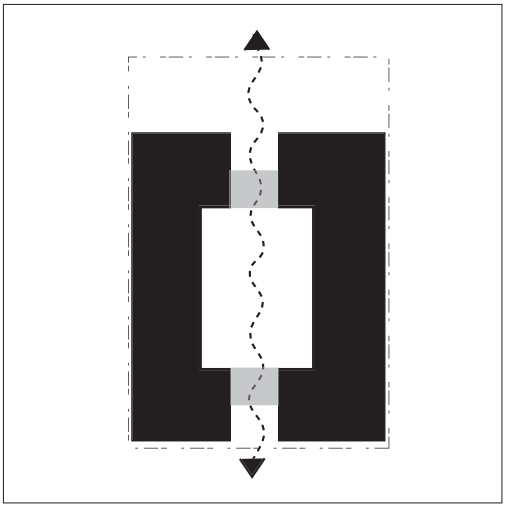
Texture, complexity, and intricacy in urban development enhances the flow of air, light, water, people, and other creatures. The parcel should be designed with this in mind.

Related Charrette Strategies
J2; K3; N1; P1; P2

Related Guidelines
29; 36; 40

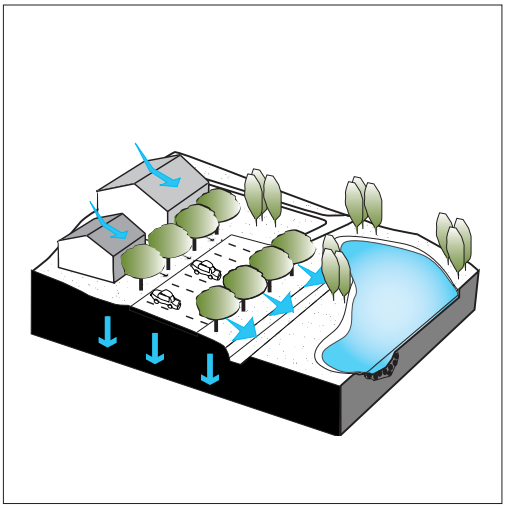
34.1 Penetrable Buildings

Large building footprints can feel imposing and may reduce the quality of interior spaces. Where possible, reduce large building footprints and provide pedestrian access through buildings in order to allow the free movement of people, light, and air. Entrances, foyers, and lobbies that contain many large windows make buildings seem welcoming as they allow light to penetrate interior spaces. Open courtyards and airy entries provide light and natural ventilation for large buildings.



34.2 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.



GREEN PARKING

Incorporating stormwater best management practices (BMPs) into the design of parking lots can reduce total nutrient export by up to half of that exported from a conventionally designed parking lot (Zielinski, 28). Bio-swales, stormwater planters, trees, and rooftops of adjacent buildings can become links in a "chain" of BMPs that slow the rate of flow and assist in breaking down pollutants in runoff from large parking surfaces.

Specific BMPs should be chosen for the type of remediation needed and according to site characteristics. For example, sedimentation devices work best at breaking down coarse particulate, while marshes and wetlands are better at treating fine particulate. Choosing a combination of measures will ensure a complete and comprehensive system. Remember that in general, infiltration is many times more effective than conveyance and treatment based strategies.

FURTHER RESEARCH

Center for Watershed Protection. *The Importance of Imperviousness.*

Richman and Associates et al., *Start at the Source: Residential Site Planning & Design Guidance Manual for Stormwater Quality Protection.*

Zielinski, J. "The Benefits of Better Site Design in Commercial Developments."

35
Parcel
connect the flows

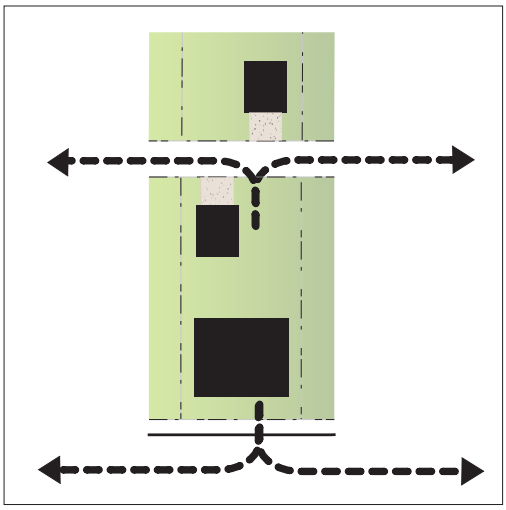
35 Use lanes to increase access.

"Those who get too used to using maps can't see the real roads under their feet." Joseph Bruchac, "First Day after the Sun Dance," Parabola, Summer, 1982.

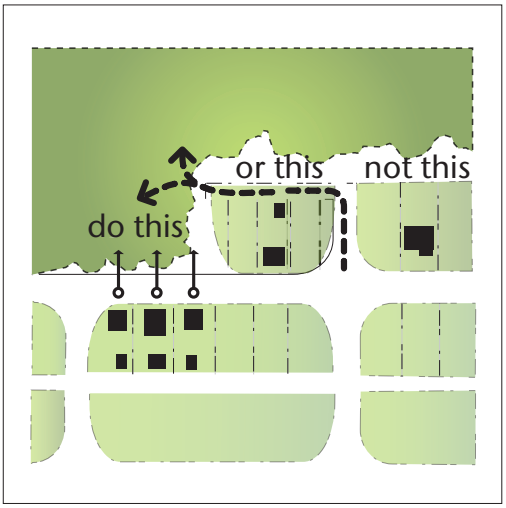
Lanes increase both accessibility to each parcel and connectivity throughout the community. A lane bisecting a block creates opportunities for increased flow: for people, for bikes, and for stormwater. Where a lane ends on public open space, it gives residents access to common open space. Connect the flow of people and stormwater by providing lanes as well as streets.

Related Charrette Strategies
A1; H2; K3; M2; N2: O2; O3

Related Guidelines
5; 17; 29.1; 39



35.1 Lanes for All
It is very difficult to provide attractive and social small-lot housing served by front drives. Rear lanes give one access to a parcel from either end of it. Primary units have their front door on the street, while the lane provides access to car storage, deliveries, and secondary units or coach houses. Building setbacks and entries should allow sufficient privacy while also providing surveillance of the street or lane. In residential areas, front setbacks should be minimal to preserve land and protect the street (between 3 and 5 metres).



35.2 Open Space Access
Parcels should front onto open space, not back on to them. Where backing parcels onto natural areas cannot be avoided, lanes will provide a more public edge than would a row of backyard fences. Lanes also provide a venue for social interaction among neighbours and a safer, potentially more visible place for children to play.

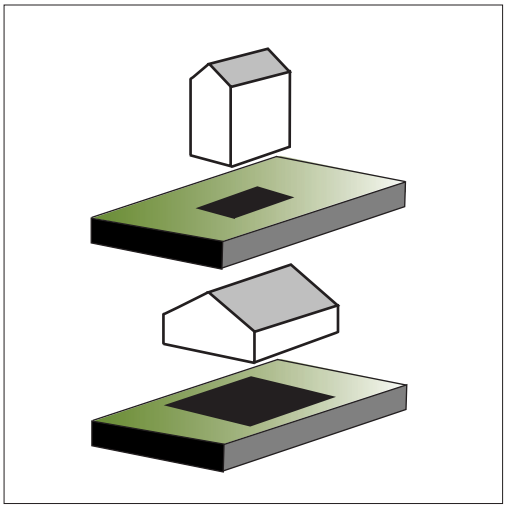
36 Minimize hard surfaces.

"The chateau planted on the hilltop had a cluster of cellars for roots." Gaston Bachelard, The Poetics of Space, 1964.

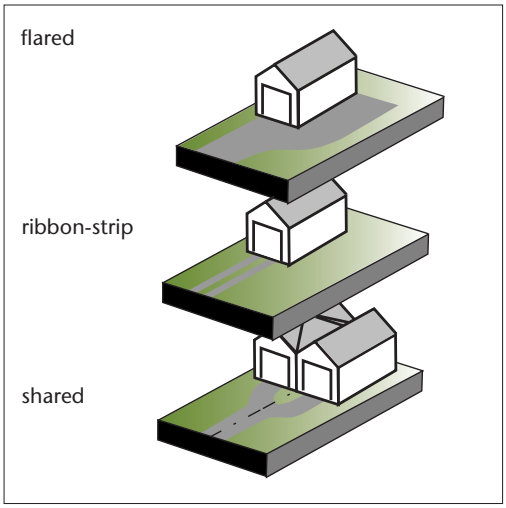
What goes on under the surface is important. Allowing rain water to infiltrate onto front and back yards supports streams and groundwater aquifers by replenishing them during dry months. Allow rainwater to infiltrate the soil all year around. Every yard can play a part in infiltration. Layer living and ecological systems onto each parcel by minimizing hard surfaces, providing space and soil for a lush garden, and maximizing rainwater infiltration.

Related Charrette Strategies
B1; H3; N1; O1; P1; P2

Related Guidelines
1; 24; 33; 34; 40



36.1 Build up Not Out
Building up, rather than out, creates a smaller footprint for the same square footage. This ensures that more of the lot is available for rainwater infiltration and that higher overall densities can be achieved without eliminating yards and gardens. For the elderly, inexpensive lifts can be incorporated into a tall, narrow 3 storey house for less than the cost of an equal sized 1 storey home.



36.2 Decrease Driveways
As people have come to own more cars, driveways have come to cover a larger percentage of each parcel. Concrete driveways are impervious to rainwater. Minimize concrete surfaces by constructing a narrow driveway, and include a flare to provide a parking court next to the garage. Alternatively, use a "ribbon-strip" driveway rather than a full paved slab. Sharing a side-yard driveway between parcels also reduces pavement. Use paving stones, permeable asphalt, or crushed stone or gravel to make "hard" surfaces more pervious.

SITE PERMEABILITY

Different land uses have different perviousness levels with commercial/ industrial uses often covering up to 90% of a site. Reducing the amount of effective impervious area (impervious areas directly connected to the drainage system) of a development can measurably increase watershed health.

BUILDING COVERAGE

The following provides suggested ranges for lot coverage in order to maximize stormwater infiltration on a site (City of Surrey, 2000).

Residential	
single-family	*45%*
duplex and townhouse	*55% - 65%*
high density/mixed-use	*55% - 80%*
Commercial	
mixed-use	*80%*
neighbourhood	*50%*
Industrial	*50 - 70%*

PERMEABLE MATERIALS

Permeable surface materials (such as porous asphalt, individual pavers, crushed gravel, or another equally effective material) should be used as appropriate for car storage, walkways, and other surfaces around buildings. All other non-pervious areas should drain into a pervious surface area.

FURTHER RESEARCH/POLICY

City of Surrey Department of Planning and Development, "Land-use and Development Performance Standards and Design Guidelines." In *East Clayton Neighbourhood Concept Plan.*

Metro Regional Services, *Green Streets: Environmental Designs for Transportation 2040.* p. VI - 21.

BC Ministry of Water, Land and Air Protection, Envrionment Canada., *Stormwater Planning: A Guidebook for British Columbia (Draft).*

37
Parcel
layer the systems

37 Layer living space within each parcel.

"He was a man with only one story: he had his cellar in his attic." Joe Bousquet, La neige d'un autre age.

Houses with a single level of living space cannot answer all of the needs of a family unless spread out over a large area. Layer living space within each lot to decrease the area of each lot, reduce housing costs, provide private family space, and foster community cohesion. It is often financially difficult for young families to own their own homes. Secondary suites provide "mortgage helpers" increasing the range of people that can afford a home while providing low cost rental housing for those who need it. These strategies also allow residents to age in place and/or provide a private place for teenagers. Domestic-scale elevators can provide full accessibility in tall houses and are often more cost-effective than building the same living area in a single-floor house.

Related Charrette Strategies
A3; I4; J4; L4; M4

Related Guidelines
11; 32; 41

AFFORDABLE LIVING

In the GVRD, there are approximately 60-70,000 secondary suites, accounting for approximately 20% of the rental housing supply. However, many of these are "illegal" due to restrictive zoning and inflated impact fees imposed by many municipalities. A recent study found that secondary suites in urban areas consume less than 40% of the water, produce less than 40% of the garbage, and add only 36% as much volume to roads than do primary dwelling unit occupants. Yet, in many municipalities, impact fees are upwards of 80 to 100% of that paid by the regular suite (Eberle and Kraus, 1999).

ENERGY EFFICIENT LIVING

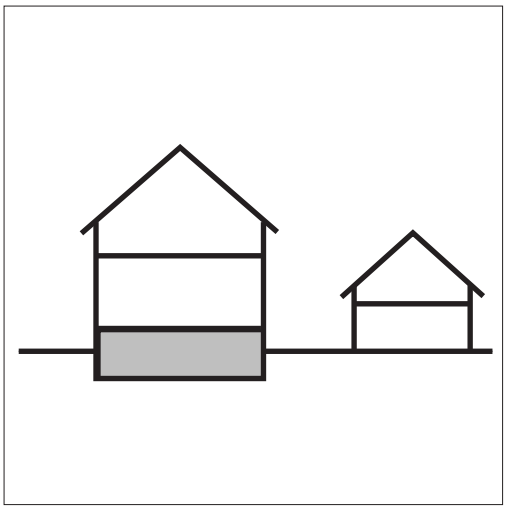
Secondary suites provide the following energy-saving benefits:
• Increased viability of public transit;
• Reduced costs of recycling and reuse, as well as collection of waste;
• Reduced demand for materials used for constructing residential neighbourhoods (due to lower average per household residential space); and
• Lower household energy use per person since multiple dwelling units can be heated or cooled using less energy per unit of area than other forms of housing.
(Adapted from Canadian Urban Institute in Eberle and Kraus, 1999).

FURTHER RESEARCH/POLICY

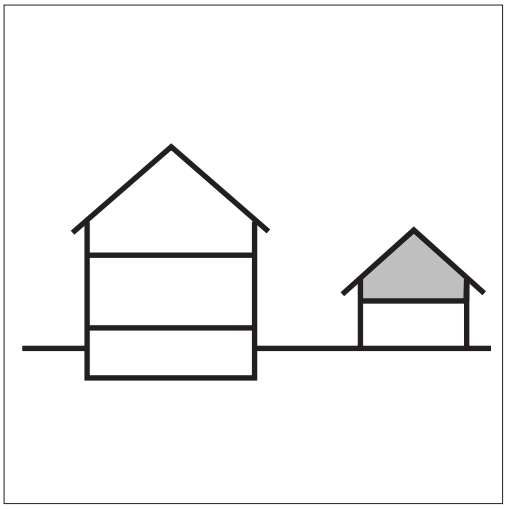
Canadian Urban Institute, *Housing Intensification: Policies, Constraints and Options.*

Eberle and Kraus, *Measuring the Impact of Secondary Suites On Municipal Services and Infrastructure.*

Energy Pathways Inc. *Second Dwelling Units in Rural and Village Settings.*



37.1 The Basement Suite
The basement suite is a model common to BC. It can be totally independent from the upper floors, or it can have optional access between dwelling units. Complete segregation is ideal for market rental units, which can supplement the family income. Complete or partial internal interconnectivity, such as a shared kitchen on the main floor, is ideal either for live-in parents who may need care or for an older child who needs some degree of independence. In each case, a separate entrance is desirable to give the resident a sense of independence. Some kind of semi-private outdoor space around the entrance is also recommended. Sound insulation between units is essential for safeguarding privacy and enhancing liveability.



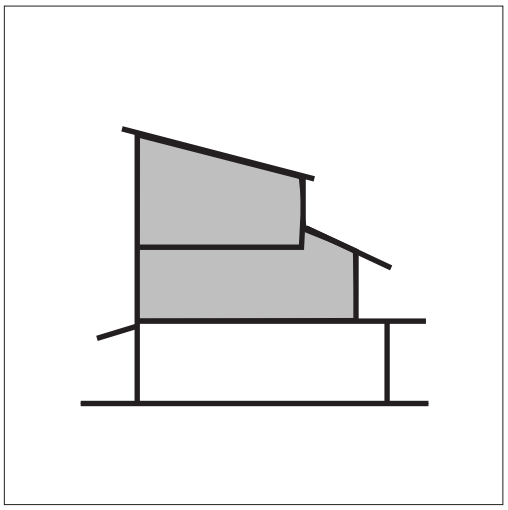
37.2 The Carriage House
A suite above the garage is ideal for parcels accessible from a lane. Separating the suite from the house gives homeowners and tenants a greater sense of independence. Lane access means easy car access for tenants, who keep a watchful eye on the lane. A carriage house is also ideal for a home office or an artist's studio, eliminating the need to rent work space elsewhere. Corner lots are ideal for a carriage house because the principal entry may face the flanking street; otherwise, the entry must connect to the street via the side yard.

37.3 The Attic
Often thought of as a mere storage space, the attic has great potential for increasing the living space in a small house. Although not always suited for secondary suites, the attic is ideal for a teenager suite, office, or studio. Even small or low attics can provide enough area and height to warrant a sleeping loft for children or guests.

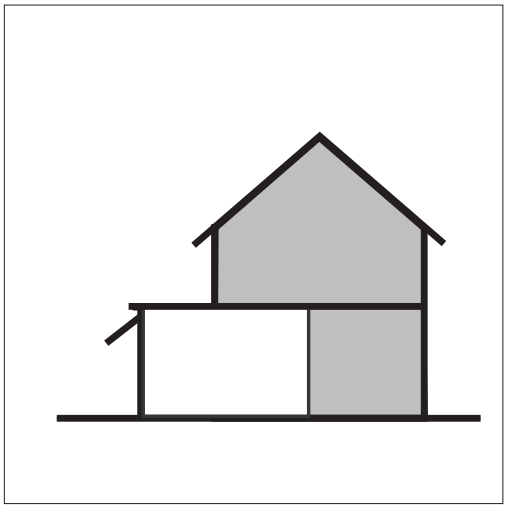
38 Layer living and working.

"This is not simply a home office. It is the room of a man's life." Akiko Busch, Geography of Home, 1999.

Living and working in the same place is not a new idea. Almost everyone has lived near a local corner store that is attached to a full house or has a suite above it. Artists often live in a loft that also functions as their studio. By simply expanding this idea to include offices, retail shops, and craftspeople, many more people can live and work in the same place. From lofts in mixed-use buildings to single-family detached homes that incorporate office space, ensure that there are layered working and living spaces throughout the community.



38.1 Live Above
Situate a loft or second-floor suite above a studio, office, or storefront. This allows individuals or a couple to live and work in the same place.



38.2 Live Beside
"Barnacle" a studio, office, or storefront onto the side of the main home. This gives enough room for a large family and allows family members to work in the same place.

Related Charrette Strategies
B4; E4; I4; L4; P4

Related Guidelines
8; 9; 11; 32; 37

DESIGNING FOR LIVING AND WORKING

The detailed design of each live/work unit will vary according to the nature of work being undertaken as well as the family needs of the household. In addition to these variables, the design of homes with combined living and working spaces should consider the following:

- *Occupation and scale of work*
- *Housing type and environmental/ community context*
- *Amount and characteristics of equipment*
- *Gender and stage of life cycle*
- *Telecommunication/transportation access*
- *Number and frequency of clientele*

(Adapted from Cullen in Gurstein, 2001, p.144).

ENVIRONMENTAL DESIGN

The integration of working space into living space should maximize human comfort and environmental quality. Important considerations include: access to natural light and ventilation, visual and acoustical privacy, and adequate work and storage space. A physical connection between the working and living space should be provided. Work units should have direct pedestrian access to the street.

FURTHER RESEARCH

Gurstein, Wired to the World, Chained to the Home.

City of Surrey Department of Planning and Development et al., "Section 4.3: Live/Work - Work/Live Areas," *East Clayton Neighbourhood Concept Plan.*

Contreras, Ferrara Architects Inc. *Home Occupation Scenario.*

39
Parcel
create a centre

39 Provide a front door on the street

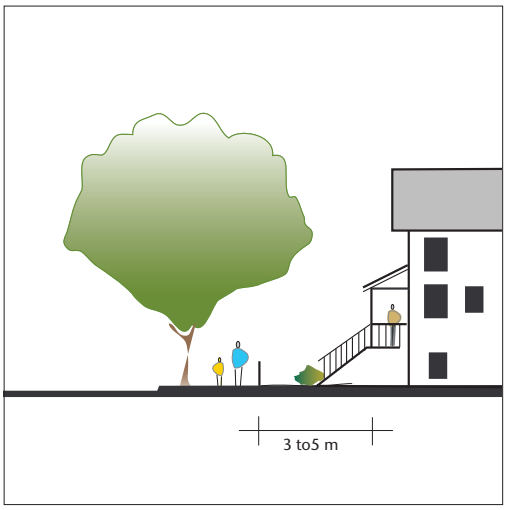
"If there is any part of the home that does not belong exclusively to the people who live there, it is the front door." Akiko Busch, Geography of Home, 1999.

The edge between the building and the street is a crucial space. It both separates and connects residents to the public realm. Placing homes and shops close to the street edge provides more "eyes on the street" and makes the community a safer and friendlier place for everyone.

Related Charrette Strategies
F3; G2; H3; I3; M2; O2

Related Guidelines
24; 25; 26; 28

39.1 A Friendly Face
Houses with windows, doors, and porches on the street allow residents to keep a watchful eye on activity. A porch and front door on the street provide an opportunity to be outside at home, thus encouraging residents to engage with passers-by. A good porch has a clear depth of at least 1.8 metres and is raised a minimum of 0.5 metres above the ground. A low line of vegetation or a fence of no more than 1 metre in height located along the property line makes this semi-private realm quite comfortable as it provides a clear distinction between the front yard and the public street. Houses on corner lots should address both streets. Even when residents are not physically present, the friendly face of the house creates a sense of imminent use and of security. Gated communities preclude public street activity and, thus, are not consistent with sustainable planning principles. Help to establish "eyes-on-the-street" by locating the garage at the rear of the house, off a lane.



39.2 Tight Setbacks
Houses set close to the street have more of a presence than do those situated further back. A small front-yard setback creates a larger backyard area for private outdoor use. Locate single-family dwellings no more than 5 metres from the property line. Allow porches and stoops to project 1 metre into the setback, and allow stairs to extend into the setback as required. Place townhouse setbacks at no more than 4 metres. It is preferable to build mixed-use and commercial buildings to the front lot line, although a 2 metre setback is sometimes acceptable.

39.3 Garage on the Side
Driveway accessed homes on small lots can have a friendly face on the street if the garage door is set back a minimum of 2 metres from the façade so that the visual focus is maintained on the residential portion of the building. A recessed garage also allows parking on the driveway and within the property line, while the façade of the house remains visble, close to the street.

FURTHER RESEARCH

Allen Jacobs. *Great Streets.*

Jane Jacobs. *The Death and Life of Great American Cities.*

40 Design smart parcels.

"Being blind, it does not see what it is building; it is interested only in the interior of its dwelling; and even if it could see, as it never leaves home it would be unable to appreciate the external appearance." Maurice Maeterlinck, Parabola, Winter 1993.

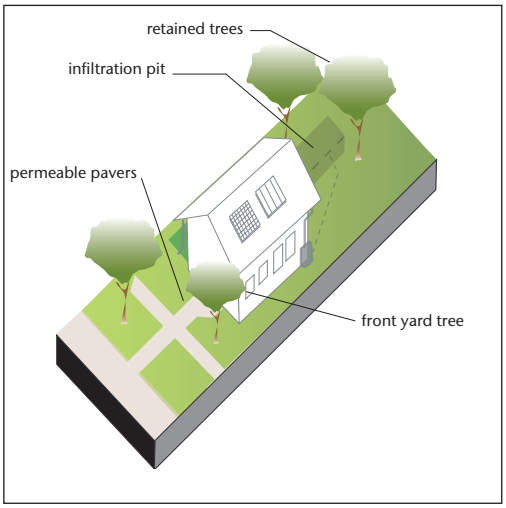
We often build our homes without fully considering how the house, yard, and roof function. Sustainability at the parcel level, multiplied by the thousands of parcels in any district, can affect the sustainability and economy of an entire region. Houses that capture and (re)use energy and resources are cost-effective and reduce environmental impact. This decreases community environmental repair and maintenance costs. Engender a personal understanding of sustainability and decrease costs at the source by making the parcel more sustainable.

Related Charrette Strategies
N1; N4; O1; P1; P2

Related Guidelines
33; 34; 36

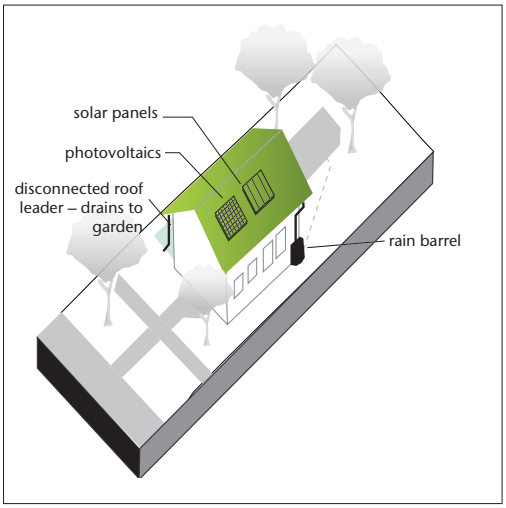
40.1 The Yard

The yard is like a small sponge; it can absorb all the rain draining off roofs, parking areas, and pathways. Use materials such as crushed stone or pervious pavement for permeable driveways and paths. Cover no more than 50% of a parcel with buildings and impervious surfaces. Design all permeable areas, such as lawns and gardens, to accept runoff. A concave lawn edged by gardens can collect and infiltrate stormwater on-site. Yards are also an important part of the urban forest and should be planted with shade trees that, at maturity, should cover 40% of the lot. Stockpile topsoil during development for redistribution; the resulting topsoil can be twice the original depth. Soil porosity must be maintained throughout construction and tested before occupancy permits are issued.



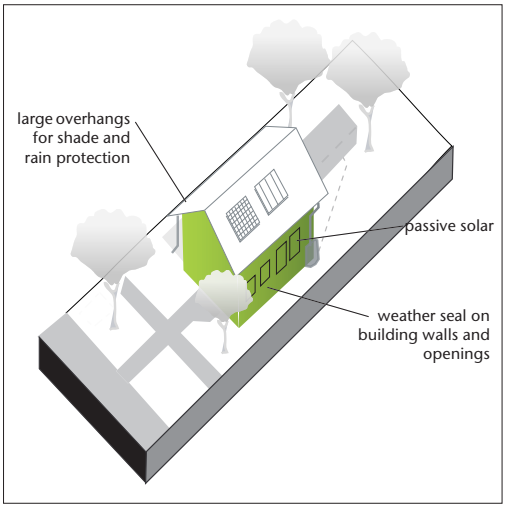
40.2 The Roof

The roof is often overlooked as a functional element of the sustainable home. A rooftop cistern can collect rainwater for irrigation, while water from the roof can be filtered for household use. Rain barrels attached to downspouts can provide water for irrigation and remove water from storm drains. Alternately, a splash pad at each downspout can dissipate water into yard turf. A flat roof is ideal for a roof garden: it provides a place to grow flowers and food for those who do not have access to a garden plot on the ground. When lifecycle costs are considered, green roofs are cost-competitive with conventional roofs as, if properly maintained, they seldom need to be replaced. Solar panels mounted on or in the roof of a house can convert sunlight into energy cost-effectively. Stored for later use, this energy can be used to run appliances and generate heat. Orient rooftop gardens and decks so as to maximize solar gain and quality of view.



40.3 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 heat 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 from about 20 homes. Treated correctly, clean discharges from black and greywater systems provide an excellent and safe source for irrigation water and for slow release into infiltration storm systems, thus uring summer base flows in nearby streams.



GREEN YARDS

Minimizing site disturbance during construction will assist in maintaining soil hydrology while preserving vegetation and nearby watercourses. A thorough site inventory and assessment should be undertaken at the design stage to ensure proper consideration and protection of environmental features.

GREEN ROOFS

Roofs that are moderately sloped or flat provide ample space for growing gardens or for providing habitat for local birds. Even roofs with a pitch of up to 45% can accommodate planting, although greater consideration to prevent soil slipping and to ensure adequate water retention in the substrate are required. Adequate roof drainage and waterproofing are important considerations on all green roofs.

Recommended depths for soil are:

groundcovers:	*30 cm*
urban agriculture + flowers:	*30 - 45 cm*
shrubs:	*45 - 60 cm*
trees:	*76 - 92 cm*

(Cole et al., 1999, LA - p.13.)

GREEN CONSTRUCTION

Minimizing, reusing, and recycling construction and demolition waste will reduce the energy consumption of buildings before they are occupied. Waste Management Plans ensure construction-site recycling of various construction materials and by-products.

FURTHER RESEARCH

Wooliams, *Planning, Design and Construction Strategies for Green Buildings.*

Cole et al., *City of Santa Monica Green Building Design and Construction Guidelines.*

GVRD, "Construction/Demolition Recycling Program."http: //www.gvrd. bc.ca/services/garbage/jobsite/index.html

Peck and Callaghan, *Greenbacks from Green Roofs Forging a New Industry in Canada.*

41
Parcel
an economy of means

Related Charrette Strategies
A4; B4; D4; I4; J4; L4; M3

Related Guidelines
8.3; 32; 37; 38

41 Provide a variety of housing types

"Skyscraper, skyscraper, scrape me some sky: tickle the sun while the stars go by." Dennis Lee, Alligator Pie, 1974.

Different families have different needs particularly when it comes to housing needs. The type of residence a family needs depends upon family size, income and the age and physical requirements of family members. Often these needs change over time. If a community contains a full range of housing types residents of all types can find a home there.

RESIDENTIAL MIX

Complete communities provide a healthy mix of housing types at densities that support a viable transit system. For example, the following minimimum thresholds used for the East Clayton Neighbourhood Concept Plan achieve an average net density of 25 units per hectare.

Single family detached
Half-acre (4 upa): 9%

Single Family detached and duplex
Low Density (6 - 10 upa): 19%

Single Family detached and duplex
Medium Density (10 - 15 upa): 16%

Town house and apartment
Medium-High Density (25 - 45 upa): 15%

Apartment/condominium
Mixed-use (25 - 45 upa): 10%

FURTHER RESEARCH / POLICY

City of Surrey Department of Planning and Development, et al., "Section 3: Land Use Statistics." *East Clayton Neighbourhood Concept Plan.*

41.1 The Single Family Home
Single-family homes are attractive for many families. A yard provides opportunities for living, for recreating, and for gardening. While they consume more land than other forms, they can be built on lots as small as 232 m^2 (2500 sq. ft.). Secondary suites can be included to help young families afford their first home, and for family and life-cycle flexibility over time.

41.2 The Duplex
Duplexes offer many of the same amenities as do single-family houses but usually at a lower price and greater land use efficiency. Both households can share a garage off of the back lane while having individual front doors and porches facing onto the public street. Optional secondary suites, either on the ground floor of each unit or as coach houses, can further decrease mortgage costs for each family. Larger parcels and corner lots are ideal locations for duplexes.

41.3 The Townhouse
A townhouse answers the needs of residents who want more than an apartment but who cannot afford (or do not want) a large yard. Like the single-family home or duplex, each townhouse unit can have a front door on the street with a porch and small front garden. Rear lane access to car storage is generally required so as to prevent a continuous wall of garage-fronts on the street. A small yard provides private outdoor space. Noise penetration can be minimized by careful party-wall construction.

41.4 The Apartment or Condominium
Higher-density units located at the heart of the community provide residents with affordable housing close to their daily needs. Often much less expensive per unit than a single-family home, apartments are suitable for those buying a first home, for recent empty-nesters, or for renters whose investment priorities do not include committing to a mortgage. A balcony for each unit offers an essential connection to nature and the outside community.

42 Provide semi-private open space for each home

"Civilization is not only a city that works by allowing people to live near one another, but a good city — one which enables its inhabitants to live good lives together." Daniel Kemmis, Parabola, Winter 1993.

There is something wonderful about being outside and at home at the same time. It provides both a certain sense of security and opportunities for social interaction (e.g., with neighbours and passers-by). When located next to a street or public park, semi-private open space can provide watchful neighbours to deter crime. Make it home by providing semi-private open space (i.e., a front yard, however small) between the inside of the dwelling and the street.

Related Charrette Strategies
E2; I3; M3; N3

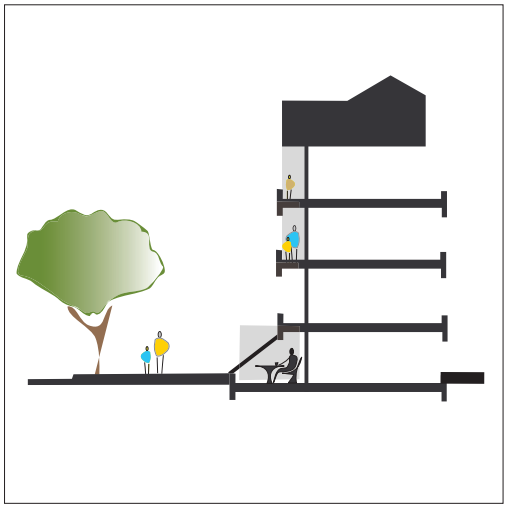
Related Guidelines
25; 28.1

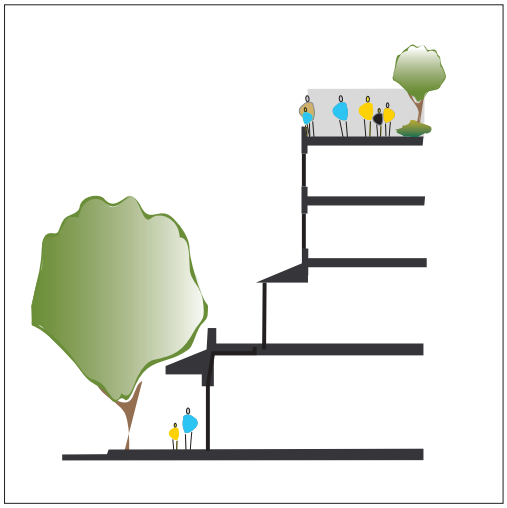
42.1 The Front Porch

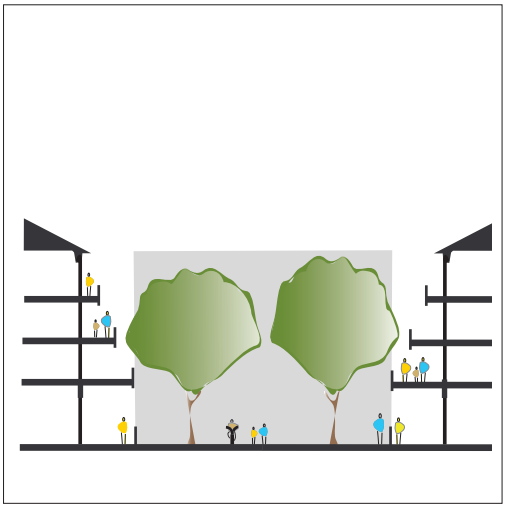
A front porch is ideal for watching street activity. Conversation with strangers or acquaintances is comfortable when conducted within the secure porch space. The front yard also acts as a transition between public and private space. A front porch gives each home a public and friendly face on the street contributing to a more secure and social public realm.

42.2 The Balcony and Patio

A balcony provides a strong sense of security, allowing for the anonymous viewing of the public realm. Less social than a front porch, a balcony on the street does make that street feel safer. In a pinch, a wide window ledge and a window that opens wide provides an inside-outside experience for an apartment. For multiple-family dwellings and live-work/work-live situations, a patio attached to ground-floor units can provide many of the amenities offered by a full-sized backyard.







42.3 The Rooftop Garden

From single-family homes to apartment towers and live-work/work-live situations, a rooftop garden offers a unique outdoor experience. Residents rarely have the opportunity to visit the roof, and a rooftop garden offers a perfect excuse to do so. It is an ideal location for a kitchen garden because it receives full sun. Rooftops with a view are also a great place to host a party or just to look at the stars. A rooftop garden provides an opportunity to be both outdoors and at home.

42.4 The Courtyard

In multiple-family homes it is not always possible to provide outdoor space for individual units. A shared courtyard gives residents without a yard the opportunity to be both outside and at home. Some courtyards are fully contained at the centre of the building. Located at one edge of the property by the street, a courtyard, like a front porch, can provide opportunities for interaction between residents and passers-by.

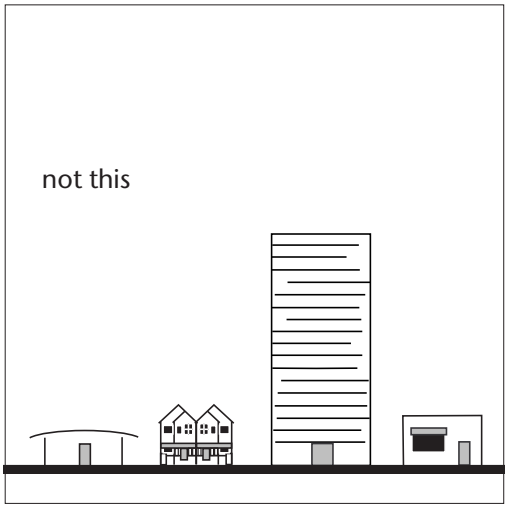
Related Charrette Principles
All

Related Guidelines
All

43 Create organic unity

"The birds of Naloot build their nests of stone just as the people do." Virginia Baron, Parabola, Winter 1993.

A community creates or preserves an identity when it exhibits an organic unity. Organic unity does not suggest that everything is the same – far from it. Organic unity means adhering to the basic rules of climate, culture, and economics of a place, while encouraging wide variations within those constraints. This means that infill buildings should adhere to the same climatic and social cues of its older neighbours. It also means that new communities should produce homes and shops that respect the lessons learned over the generations in other parts of the region. In short, sustainable buildings are made home when they gracefully accept the gifts of their place, expressing these same gifts in their form and character.



43.1 Form
Structures, when combined to form a sustainable community, form an organic continuity. This continuity is impelled by both cultural and physical imperatives. Ignoring these imperatives can produce disastrous results. Juxtaposing incoherent building forms (like those illustrated at left) produces airflow turbulence around buildings and blocks the warming sun from lower structures, leading to excessive building energy use. A similarly wasteful transportation pattern often emerges in such areas, leading to higher than necessary automobile dependence. This incoherent pattern also produces serious cultural problems. Citizens perceive a threat to their sense of "home" when incompatible new building forms are proposed for their neighbourhoods. Often it seems that any proposal for change will provoke neighbourhood resistance; however, experience has shown that citizens will accept building proposals which respect their unwritten formal rules for "home," even when the proposed building departs from typical building density, tenure type, and allowed use.

43.2 Character
If we imagine that the form of a building is like the form of the human body, then we can also imagine that the character of a building is like the character of an individual human face. A building presents a certain kind of face to the community, either welcoming or cold, either dominated by cars or dominated by people, either cheaply commercial or socially refined. Sustainable communities have building faces that are compatible with the underlying social, economic, and ecological imperatives of the community. They welcome neighbours, save expense, and capitalize on the climate while preserving the ecology. For example, large roof overhangs protect building skins from rain, admit winter sun, and provide protected places for conversing with passersby. Make it home by striving for a diverse yet organically connected assembly of building faces – faces that both express the individuality of their inhabitants and their common connection to the world outside.