



Metro Vancouver Planning Coalition

c/o 405-375 West 5th Avenue, Vancouver, B.C. V5Y 1J6 Ph. (604) 688-5585 Fax (604) 688-7486

Mayor and Council
City of Vancouver

Mayors and Councils
Metro Vancouver Region.

Eco-density through Zoning Bylaw text changes

Metro Vancouver Planning Coalition

May 14 2007

Introduction: Eco-density: Talkitecture or building?

This document is about achieving Eco-density objectives simply, at little cost, and with the least amount of public uproar. Planners and architects who comprise the MVPC propose that Council proceed through text changes to existing zones to achieve higher densities, rather than through rezoning. We feel this process would be easier, and fairer than targeting specific areas for additional density.

The full technical planning report with more detailed sections, examples of actual bylaw amendments with rationales and illustrations can be downloaded in pdf from www.plancanada.com

1.0 Red Tape. Systemic Abuse and Systems Corrections for Eco-density.

It is extremely important that we move out of site by site zoning or CD when not needed, and the arbitrary and arguably unconstitutional DP process allowed to get out of hand in the last 30 years. These processes create huge unknowns and extreme costs beyond any measurable return to the public.

We need a return to simplicity and explicit directions, known design factors and known costs, known times of delivery. If we continue to layer costly and arbitrary process on the public through the development process we only add to the cost of already unaffordable housing. This is not a small issue but at the centre of the slow decay of our administrative systems. This has grown to infect all zones and is a hidden burden to any purchaser or renter of housing, or any other built commodity in the city.

Ownership Issues; a forgotten planning criteria.

Planning approaches became so overly concerned with design that the real human needs have become subverted. Outright ownership without strata is

vital, proven by a flight to the suburbs. (Not just for cheaper land but to avoid the hassle of group ownership and all it entails.) As we have pushed strata solutions over outright ownership, our city lost people to the suburbs or forced them into joint ownership or strata against their best interests. (Survey of housing market by choices.vancouver.org 2003)

Missing Housing from Vancouver Palette 2006

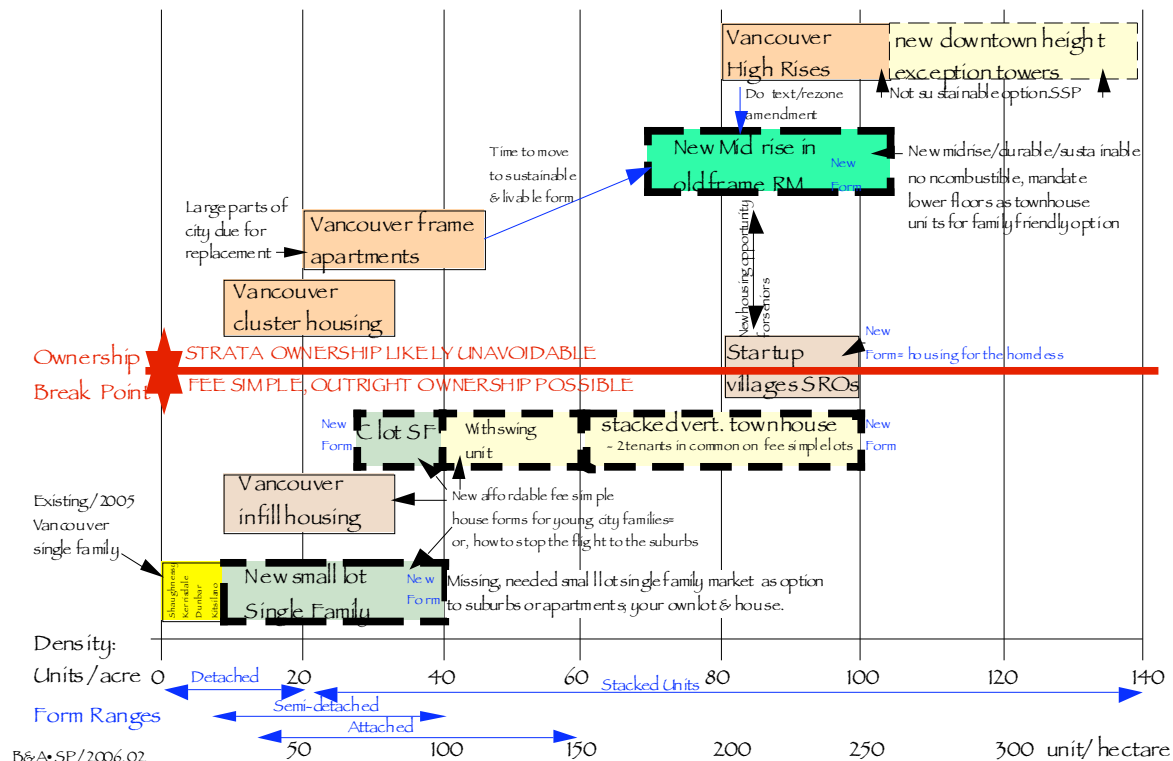


Diagram: How fee simple (no strata fees or councils) home ownership can be delivered to housing at much higher densities.

Recommendations for text changes

1.0 Making Single Family Housing Affordable in higher densities, recovering family housing for the inner city, for all income groups:

"I really like the simplification of the choices in the text amendments. The regulatory burden of negotiating on a lot by lot basis continues to be divisive of community and smacks of cronyism. Your proposal is so fair, dare I say democratic!" Pat Bourque, MVPC Director

1.1 Modify the text of R zones to permit lane infill. The Bonus.

Expanding the opportunities for infill has been the stated goal of Vancouver's for at least two decades. But little has really happened on the ground. The city's wide 20' lanes could easily become narrow streets on which to front lane cottages and coach houses. (Related issues; fire truck access versus a no parking in lanes approach, depending on locations.)

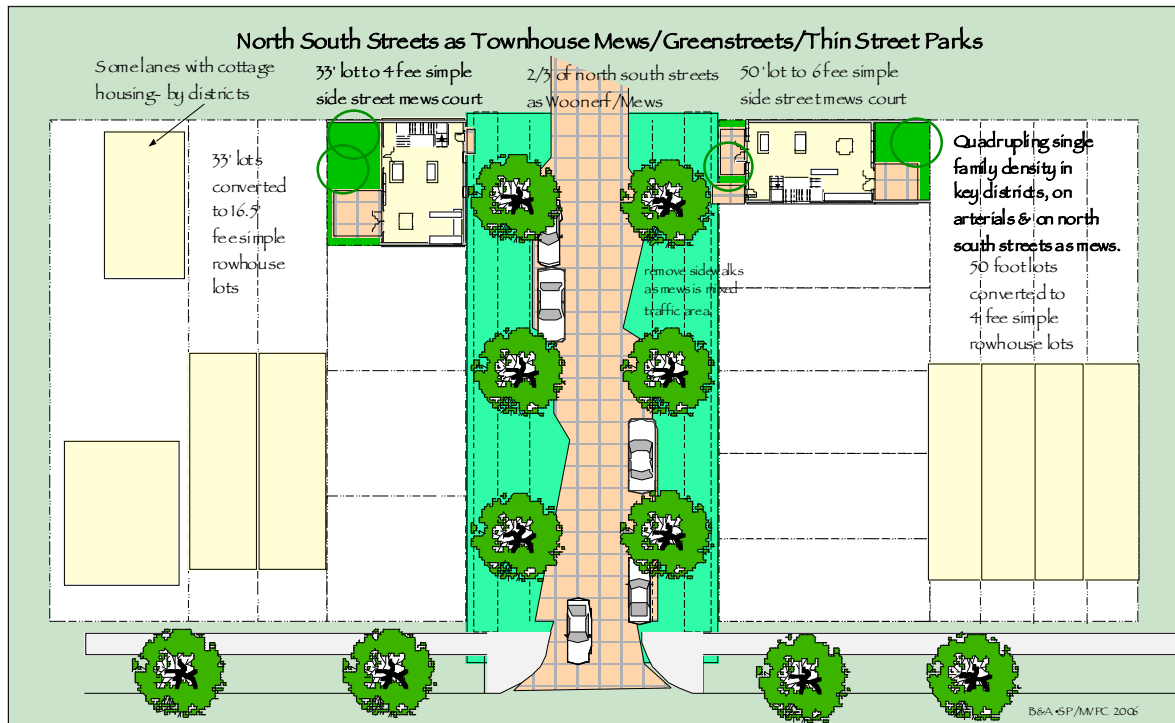
Policy Recommendation: Add 0.11 FSR to what is allowable (working formula: 240 sf plus 0.05 fsr only for a coach house allotment, apart from all other considerations on a lot.)
(equal to 440 square feet on a 33x120 lot).

Increase the allowable height to the peak of lane dwellings to 20'. (5 foot increase). Suburbs: Increase the backyard lane set back from 2' to 6' to allow parallel parking.

Area approval: across the board, across the city immediate allowance.

Image: the across the city coach house incremental density bonus for Eco density; a fair and simple one size fits all, thereby allowing for adaptation only where the demand is greatest.

Options for fee simple single family infill Illustration- underutilized road.



2.0 Modify the text of the Subdivision Bylaw and the Lot Frontage Bylaw to allow small lots and row housing.

Avoid rezoning process and any lot by lot approvals as this will only make this housing form unaffordable. This is a family or friends scale of development, not with land assembly but land subdivision, the kindest, gentlest way to provide the most in demand but still missing form of housing for Metro Vancouver.

- Permit the smaller lots sizes. This includes smaller frontages common to attached single family subdivision (traditional rowhouses) around the world.

It is time to bring into common practice what other cities have accepted as a housing norm for hundreds of years, and as an outright condition on arterial streets or by district.

Lot frontages in inner city areas should be allowed to go to building code minimum widths and maximum heights for exits under noncombustible construction limits. The extreme examples are meant to show missing options, not to be imposed on all but certainly not excluded as an option either for those that might prefer it. Why deny a good technical solution to a minority in the market just because the majority might not see the merits?

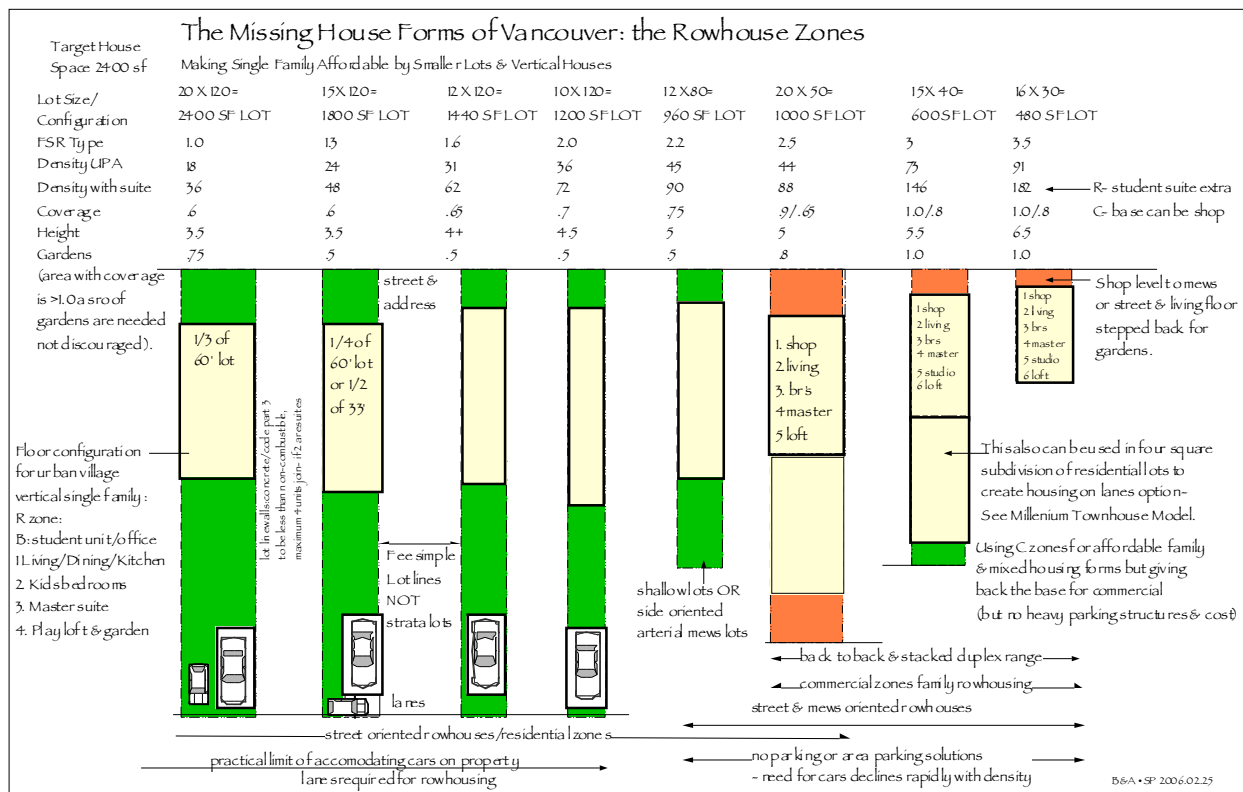


Image: Practical limits. -the combination of subdivision options to create attached single family, fee simple rowhouses. A universal house type but not in Vancouver until 2007. (Art Cowie's Cambie Street "demonstration" project.) Demonstration projects are too costly, these simple solutions need to move directly into the bylaws as outright uses.

3.0 Modify the text of commercial and industrial zones to allow housing over compatible uses.

Planners try to consider building codes to a point where good solutions are ruled out from the start. The messy areas of possible compatible uses, in old world or traditional mixes of uses has to be opened up again, and leave it to the architect to design the mix within the building code limits, not by the artificial limits of zoning bylaws. This will open up job creation opportunities for the young entrepreneur

market who has to be able to combine live and work in the same or adjacent buildings. This is another aspect of looking to tradition as energy pricing makes old land use separations unaffordable.

4.0 Up-zone C and RM zones for sustainable density and to move to noncombustible construction by doubling current apartments-in-frame districts to permit outright mid rise non-combustible replacement stock at double densities.

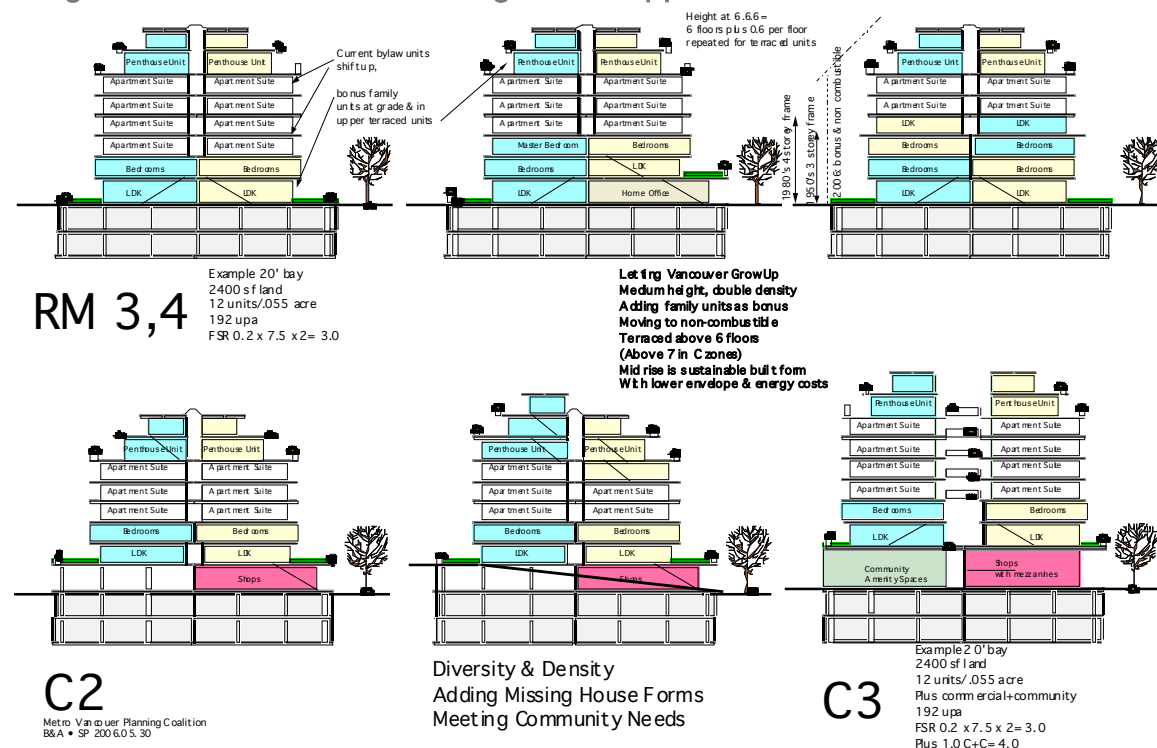
Modify the text of RM3 zones to increase the allowable FSR from 1.5 to 3.0.

In addition, allow a height of 6.6(.6) floors. Every floor above the sixth floor is 60% of the floor below where footprints allow, and set back to provide day-lighting and accessible roof gardens.

Protection of Housing Stock Issues. “Zero Rate of Change?”

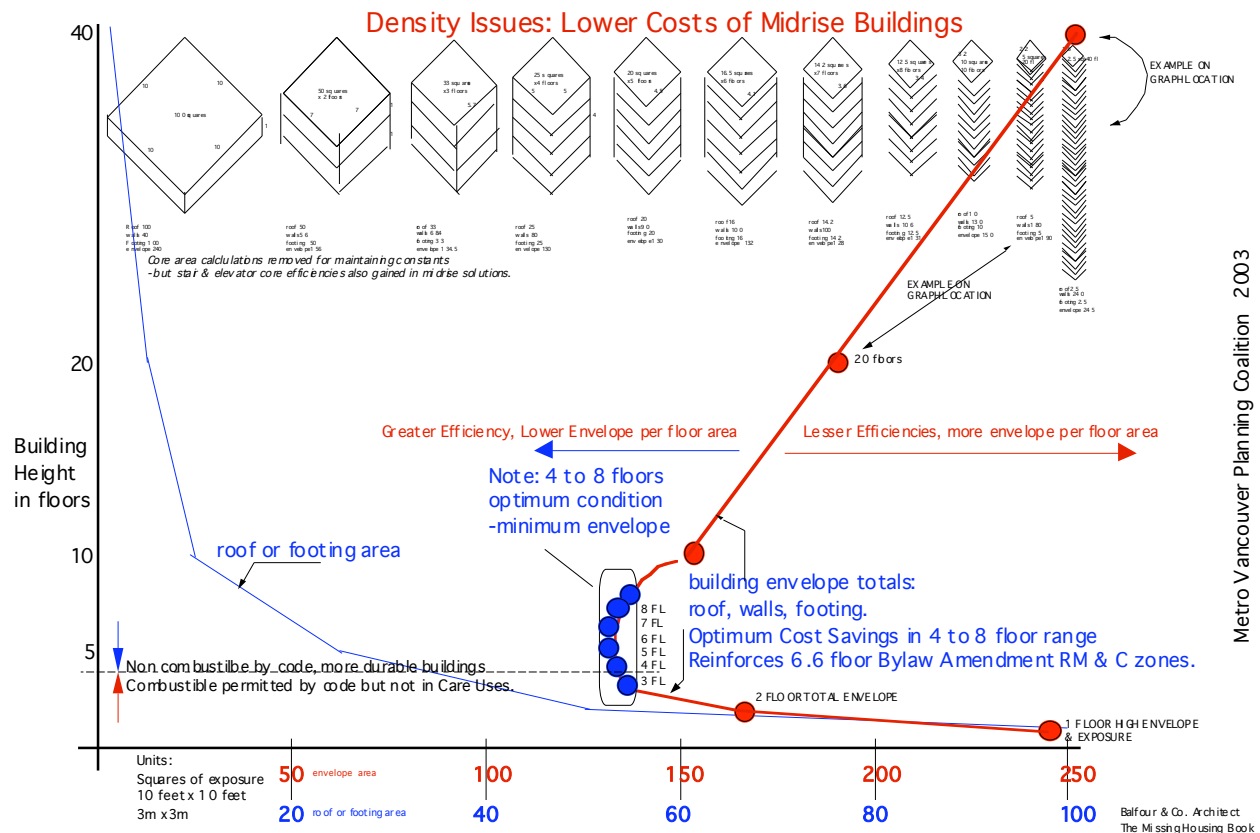
The often considered motion of freezing development in old districts as currently suggested for Marpole in the end is counterproductive. Like rent control it works for only a short time. In the meanwhile, frame apartments are demolished to build just the same thing again, a terrible waste of opportunity when the double density with ground oriented units and green roof terrace units would double the housing stock, increase livability, and give units that are noncombustible and of much much longer life span. This is an opportunity.

Image for C and RM zones generic approach



Graph of how mid rise buildings are the optimum form for Eco-density. Explanation: Built form efficiency is based on how much floor space is accommodate with how much envelope. We all know a one storey building is not as efficient as a two

storey building; smaller roof area and smaller footing means less building cost and less energy to heat and cool. This does not force anyone to move up, it is only an incentive to provide for a change over to more long lasting construction.



What most people do not realize is that thin high rises are not efficient either, they have a small roof and footing area but a huge vertical envelope exposure for the floor areas, so that they are more expensive to build and to heat and cool.

There is a 'sweet spot' in urban form where the most floor space can be built with the minimum of total envelope; roof, footings and vertical envelope exposed to sun wind and rain. These mid rise solutions found all over the world are common for a reason, they work, they are efficient and actually yield other benefits; more green roof utilization, less dependency on elevators in the energy crisis, and more psychological/social beneficial adaptable building forms. There are some other variables, but generally speaking the optimum solutions are in the 6 to 8 floor range. (Martin & March, 1972- still not out of date as this is a numerical analysis.)

5.0 Commercial Zoning Map changes:

Changes to the pattern of community requires rethinking commercial lands designations for post-oil cities.

To accommodate the shift in city patterns, the current C zones need to allow the higher density of 3.0 and the mid rise 6.6 floor heights over commercial. But the C-2 zone now making for a poorer standard of building should be up-zoned on the city maps to C-3. C-1 zones to C-2 with

more height and terracing of roof forms. New C-1 zones need introduction into all neighbourhoods where there are no local shops within a quarter mile walk or bike ride.

5.1 Pattern of Community adjustments C zones and Urban Village patterns

The move to more local commercial will introduce a new pattern to all parts of the city, to the suburb more than the central city. Reconfiguration of other major uses like schools and relocation of workplace and industry will be a result of less car dependence, not necessarily the cause. Planning for these changes now avoids a lot of pain later.

THE SIDEWALK AS PEDESTRIAN REALM- rain protection built in; downtown & urban villages. One long overlooked benefit of European cities is the sidewalk colonnade. It is never too late to start, and our rainy climate can benefit from weather protection as well as the Mediterranean cities. The bylaw amendment: to increase the setback of commercial by 3 metres on the first 1.5 floors only but allow upper floors to remain at zero setback.

5.2 Greening of the City in all forms:

The Eco side of Eco-density: mandate livable outdoor spaces for housing units, for communal uses, and for public realm improvements. See full report on web at www.plancanada.com - the Metro Vancouver Zoning Text Amendments Initiative.

Outdoor living spaces for units: as density increases, the need for private outdoor space does not lessen but increases, this is one area we need corrections for all housing types.

Community green spaces; for local area socialing, a territory of the community.

The public realm; neglected spaces, streets and niches need to be made proud parts of a greener community, the public realm can provide benefits now going missing and density increases are one way of making this possible through city or neighbourhood initiatives.

5.3 Utilize city streets for geothermal energy capture as public utility.

As city streets are dug up for service upgrades, add extra piping for establishment of a neighbourhood grid for geothermal heating, to be tapped into by land owners where on site heat capture is not feasible at an early stage.

5.4 Infill on sites that can take compatible uses.

Modify subdivision and zoning bylaws to encourage land conservation and use of left over spaces for housing and job creation. Creative infill to the sides and backs of blank building faces, to the edges of sites can add both creative new uses and improve street life for the community.

Images on wasted sites put to new good use:

4 Safeway Infill



6 Public Storage Infill



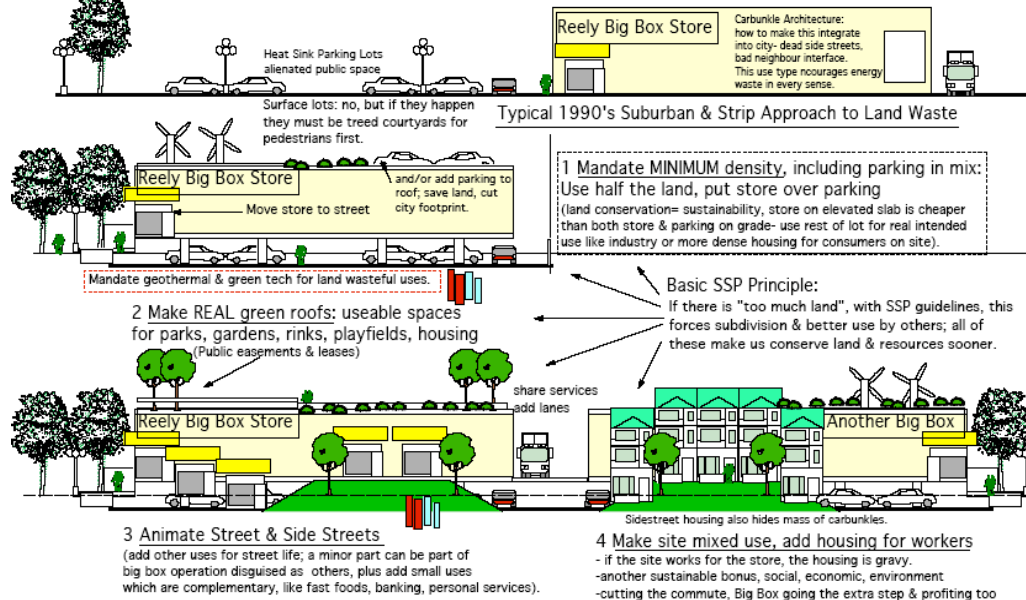
Demonstration of frontage infill of wasted sites by Rob Grant MAIBC

One generic example is in the Marpole Laboratory Report showing making use of an industrial site edge for new artisan live work industry. This also can be downloaded from www.plancanada.com. Issued as a separate report to Vancouver City as a demonstration of these text amendments applied to one old town area. **Images: Hiding and converting non sustainable land uses:**

Infill of Industrial Frontages; making better use of neglected frontages, spaces left over after planning, blank faces of storage buildings or big box stores. In some cases mixed zoning may be needed but in all cases fee simple subdivision of the new use is possible. In this way the concern over loss of industry is met; the site keeps the jobs in place but multiplies the jobs with the frontage infill.

Making Big Boxes Grow Up: fitting into Metro Vancouver: A Sustainable Issue.

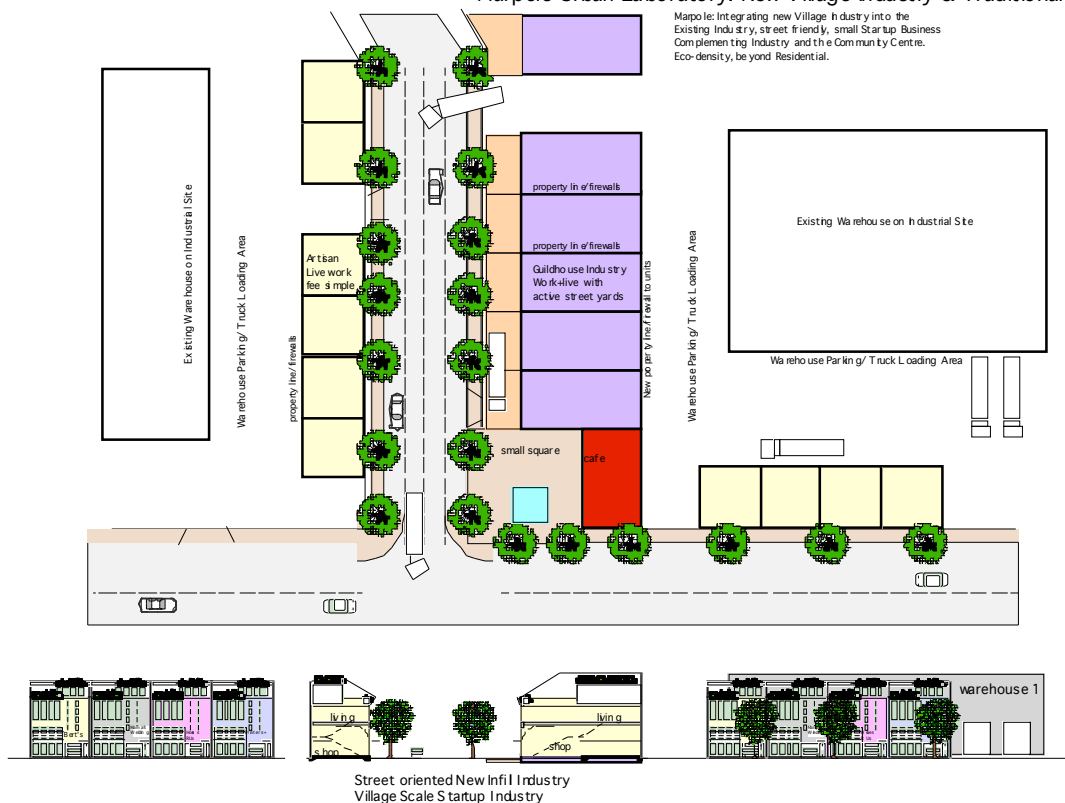
If they are REALLY needed, make them become part of the neighbourhood, not an alien presence.



Strategic Sustainable Planning Guidelines
MVPC 2006

Metro Vancouver Planning Coalition 2006.07

Marpole Urban Laboratory: New Village Industry & Traditional Use Mix



A Marpole Industrial Site; infill of new artisan industrial and live work guild house industrial live work, saving industry and adding new opportunities, land conservation

- Infill for residential use to now dead space is illustrated by Rob Grant in his report to council on Eco-density concepts.

Density Capture from the new Double Density sites. Public Policy Reform.

(Note these are double density but not high rise, these fit in the mid rise formula).

Nobody is forced to use the double density option; the footprint restricts wood frame buildings under the building codes to the 1.5 FSR.

The only conditional clauses to be introduced to the C and RM zones would have public benefit pay backs;

1) by entering into the double density certain conditions kick in, as in mandated townhouse base units with gardens and the terraced roofs for level access to green roof areas. These then provide for family housing in urban areas.

2) The other condition of exercising this density increase option in the zoning is that 10% of the units or cash equivalent would be paid to the city housing fund to create city housing projects in the same local area. This works out to a 40% capture of land value increase due to density bonus, a fair trade off for all including the city.

6.0 The need to end the “Yes- But” Thinking.

It is time to change most of our thinking as we lose most of what we take for granted. If these text changes had been put into place when first suggested 18 months ago, we would have buildings on the ground already. These changes also provide enough incentive and public benefits to achieve most of the missing housing for all income groups by the public sector.

We really have little time to reconfigure our cities for the new age after cheap oil and the car. The cities we have built for the car era cannot function when energy is many times current prices. The usual response from car age planners that these traditional approaches are nice, but..... is not acceptable. The time and energy wasted on area plans that have no vision but only illustrate what the 1929 Bartholomew oil era plan, (a frontier city planning statement at best) has to be replaced with radical shifts in thinking and the pattern of the city. Cars may not disappear but all energy price escalation will radically alter all things we now take for granted, particularly mobility.

The across the board changes makes certain the impacts are also spread fairly across the landscape for opportunity but allows the market to change where it can and quickly. The immediate text change avoids the cost and hassles and delays of continuous rezoning all over the city which only makes housing more unaffordable by the wasteful nature of the process. We have a Development Permit system to control design, but even that must be cleaned up and accelerated to reduce waste and maltreatment in execution. This mostly applies to the inner city but is increasingly a problem in all areas of regulatory controls.

This paper does focus on the inner City of Vancouver for convenience but the principles apply across the Metro Region. Related to that notion, is the concept of the declining density concept of oil age era planning; the expectation that density and form only tapers off from the centre to the suburban edge. The planning lexicon based on the “fear of change”, that something might go wrong has stopped some negative possibilities but also many positive ones. If is fear of “what might go wrong”, we have already created many problems by trying to slow change already. We now have a short window of opportunity to correct some of these before real energy price escalation kicks in, when an already unsustainable Metro area becomes totally unlivable. This is why changes to pattern of communit is key to any success.

7.0 Modify the text for zones outside the downtown to turn the required minimum number of spaces into the maximum number of spaces. Removal of further parking requirements in the core areas.

Permit off-site parking at distances beyond the adjacent site (a new business?). Provide private sector incentives to encourage the addition of parking spaces on each block for co-op cars.

See Appendix section on discussion of parking bylaw adjustments for the post oil age.

8.0 And Lastly a Need to Land Tax Reform

Taxation has evolved in the cheap oil age to encourage both mobility and waste of land, to the detriment of both the environment and our own social well being.

To practice energy conservation we have to start with land conservation, and that only can happen when tax policy forces new efficiencies, mostly now lacking in commercial and industrial lands. We only make use of 10 to 25% of Commercial and industrial lands (due to lack of maximization of permitted density) and yet keep demanding more farmland be taken our of production to allow industrial sprawl.

If we can quickly shift the tax calculation away from the improvement side to a more flat rate on C& I lands, this will push for higher usage and a shrinking of the urban footprint. We can actually shrink the area of urban impact and make more of it green. In agriculture, the tax on farmlands should be reduced to close to zero on the active farming portion of lands and buildings, forgiven but not forgotten, clawed back if taken out of farming. And housing above the mean value for that community should be taxed on an escalating rate to stop “estate housing” on farms.

Scientists now say, “we need to use science in dealing with Global Warming but we cannot wait for Science to act. The same is true of our missing housing and the need to reconfigure the cities; we need to use planning but we cannot wait for planning to act” (R.Balfour, WUF forum on Cities on the Edge 2006).

To present these findings we ask to appear before the Planning Committees of Vancouver city Council and the Planning or Housing Committees of the Metro area Regional Districts as a follow up to the introduction of the NCI/PCI suggested Peak Oil Motion of 2005.

On behalf of the Metro Vancouver Planning Coalition/MVPC Housing Group.

Stuart Howard MAIBC
2007.05

Richard Balfour MAIBC

Appendix: Background to the Recommendations: Parking vs Land Conservation.

The Parking Bylaw Text Amendment or Abandonment of Parking requirements by District:

The largest cities of the world all reached a stage where they realized they could not advance if the requirement for automobile parking was going to stall development or make their city unlivable. Imagine New York or London, Paris, Tokyo, Delhi or Rome if they tried to accommodate the car before they could house the humans the way we do in Vancouver. Their cities could not exist. Our present form, density and pattern of land use is drastically affected by the demand to park first, worry about buildings or street life after.

On top of that we have a looming crisis within only a few short years; we are on the last quarter tank of the planets oil reserves, and astronomical price escalation cannot be avoided. This will alter patterns of all we do as we shift not by choice but by force of a new reality. In short we already have more parking in the city than we need. As radical as it sounds we could just stop requiring parking immediately. Those with the surplus in old buildings can be compensated by allowing them to lease spaces to others. In some places we may hedge our bets by building public parking or pooled areas for large areas of deficit in parking.

In large cities it is up to you to figure out where to house your car, often at prices equal to your cost of accommodation. In Dutch new towns, no parking is permitted even in suburban towns. Some parking alternatives may be permitted for alternate urban vehicles which will be hybrid or electric but also smaller or 'stackable'.

Part of the reason whole sections of our urban commercial streets are one floor high and not 6 floors is that the small lot and frontage meets commercial needs and need for outright ownership but the modules under 120 foot frontage do not work for structured parking. If we remove the need to house the car (we have over 30% of the city in streets for parking on street edges too), then these totally underutilized parcels can be used for new housing as per the section for C zone revisions, the 6.6 floor formula.

This new density by itself will provide a pattern of community where car ownership would be cut drastically due to this factor alone, and community car ownership would meet most freedom of travel needs of the new residents.

The notion of simple parking reduction by phases or stages has been looked at and given the impending end of cheap energy, the only logical step is to move directly to the separation of parking from properties at a minimum to an outright abandoning of parking requirements as a fair and broad change to the city, including the whole Metro area. This will not stop suburban approaches to over-park, however that too should be quelled by counting parking as part of both use and coverage, and taxed at a rate to discourage over providing of parking in any part of the Metro area.