

hastings corridor masterplan ^{influx}

lara davis / jen cutbill / caroline schutrumpf / katy amon / brooke dedrick

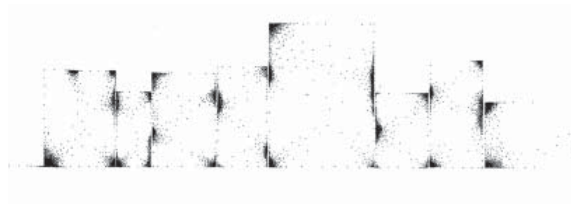
sustainable urbanism : the hastings corridor

ubc urban studio : fall 2008

Process

Principle Development

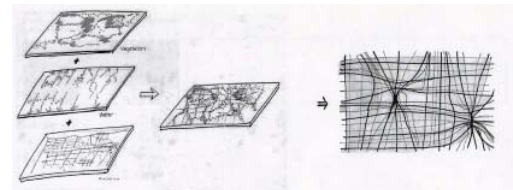
The four principles described below attempt to approach urban structure and strategic planning from a framework of interactive performance, as opposed to the more conventional form-based frameworks. The abstract nature of the principles is intentional and essential to facilitate a shift to a new paradigm for urban planning and urbanization in the 21st century. While all are inherently interrelated, each principle perceives the process through a different lens. Consequently each negotiates specific indicators/metrics, and each involves different behavioral shifts and their related formal implications.



Resiliency



Gradation



Dynamic Equilibrium



Self Sufficiency

Process

Research

Construction



2030 Challenge

Green Systems Functions

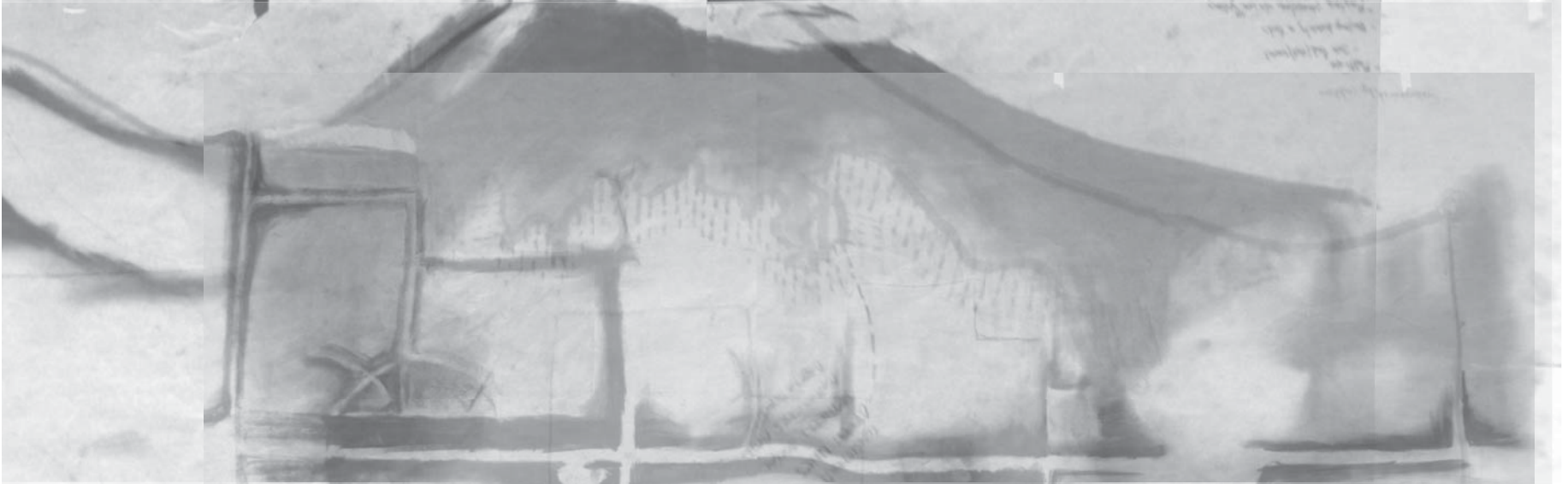


low

high

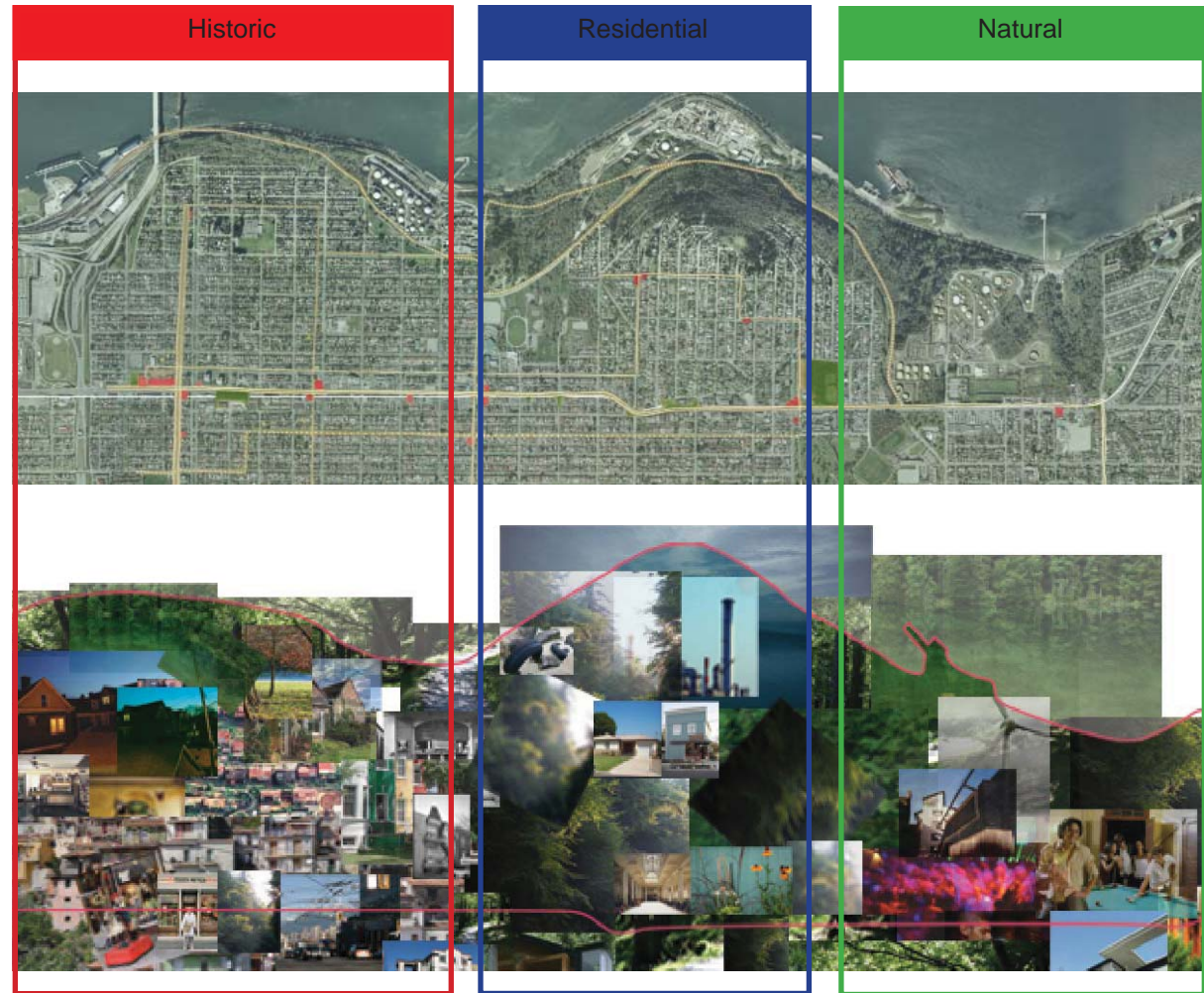
Process

Applying Concepts: transportation, green networks, activity intensity



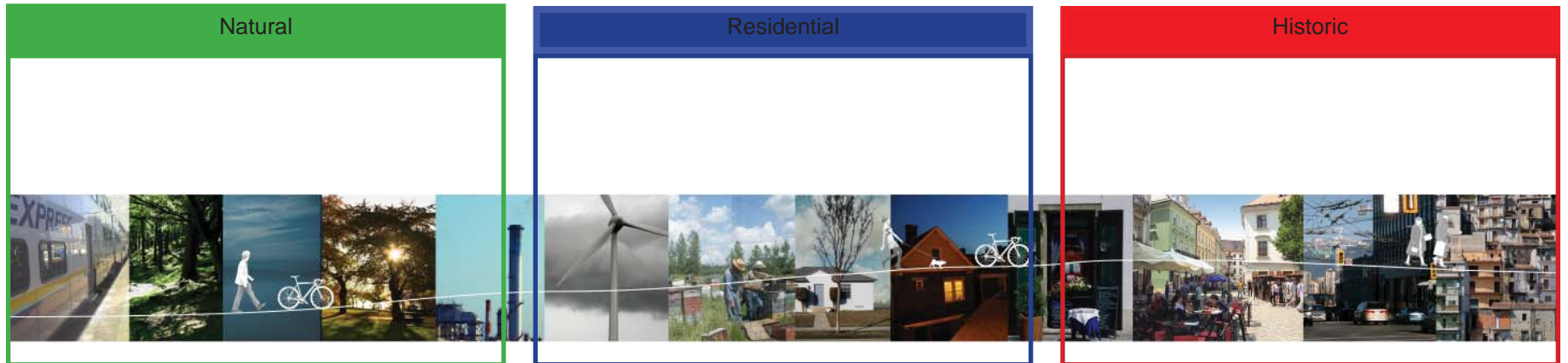
Process

Identifying Character Areas: East/West



Process

Identifying Character Areas: North/South

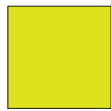


Strategic Plan

Legend

Colored areas indicate formal changes

New Residential



type. COACH HOUSE
density. 1 UNIT PER LOT

gradient.
existing block edge conditions become less rigid

dynamic equilibrium.
offers diversity of housing choices for changing family and social structures over time.

resiliency via flexibility.
provides necessary density while retaining existing structures and neighborhood character

self-sufficiency
residential density and proximity supports commercial areas.

New Mixed Use



type. 3-STOREY
density. 26 D.U. PER ACRE

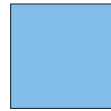
gradient.
visually integrates with existing residential and commercial urban fabric.

dynamic equilibrium.
offers diversity of housing and commercial opportunities.

resiliency via flexibility.
flexible use as required across time and location. allows for the adaptive re-use of existing structures.

self-sufficiency
residential density and proximity supports commercial areas.

Improved Civic



type. ECO/SOCIAL/INDUSTRY
density. AS REQUIRED

gradient.
relaxes boundaries between traditional zoning uses.

dynamic equilibrium.
capitalizes on and illuminates areas of multi-systemic intensity

resiliency via flexibility.
allows for re-use of existing infrastructure. creates flexibility in systems functions.

self-sufficiency
creates opportunities for district energy and decoupled systems.

Connected Green Systems



type. PARKS/GREEN INFRASTRUCTURE
density. N/A

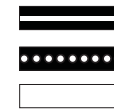
gradient.
ecological systems protected in wooded areas and integrate into multi-function streets.

dynamic equilibrium.
encourages balanced interactions between ecological, social, and infrastructural systems.

resiliency via flexibility.
capitalizes on and connects areas of existing green systems to improve functionality.

self-sufficiency
provides neighborhood opportunities for human/nature interactions.

Better Transit and Transportation



type. TRANSIT ROUTES
type. URBAN TRAIL
type. TRANSIT STATIONS

gradient.
transit options with varying degrees of intensity

dynamic equilibrium.
multiple modes and routes converge at points of systemic intensity

resiliency via flexibility.
varied and flexible systems provide resilient service. builds upon existing infrastructure.

self-sufficiency
fine grained transit web strengthens opportunities for environmentally sustainable neighborhood.

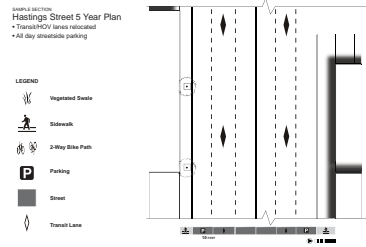


Strategic Plan

Phase 1: 2020. Increasing Transit Density



Street Plan



Off-Street Parking



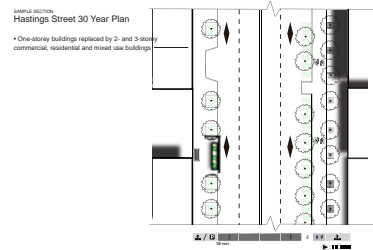
*see appendix for full size diagrams

Strategic Plan

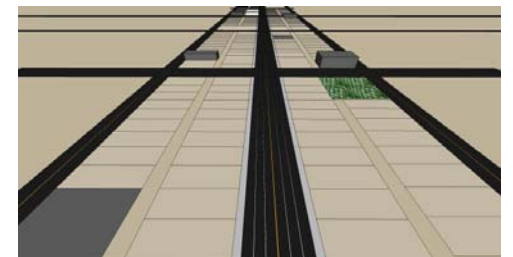
Phase 2: 2020. Retrofitting Infrastructure



Street Plan



Off-Street Parking



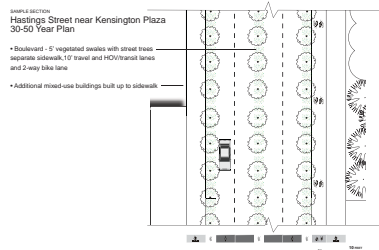
*see appendix for full size diagrams

Strategic Plan

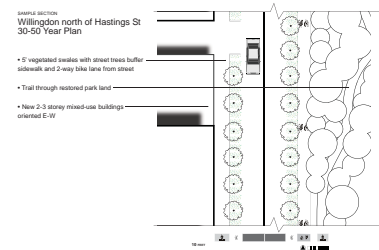
Phase 3: 2030



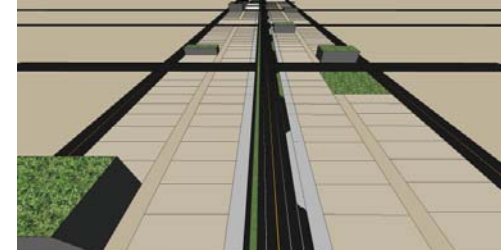
Street Plan: Heights



Street Plan: Kensington



Off-Street Parking



*see appendix for full size diagrams

Strategic Plan

Precedents: Gradient



Process

Precedents: Dynamic Equilibrium



Strategic Plan

Precedents: Self Sufficiency



Strategic Plan

Precedents: Resiliency via Flexibility



Strategic Plan

Phase 3. 2030

Resiliency Via Flexibility: Increased density is accommodated largely via retrofitting existing structures



Density allocations

Additional Commercial Space: m²

- 1: 35 500
- 2: 20 701
- 3: 52 618
- 4: 32 000

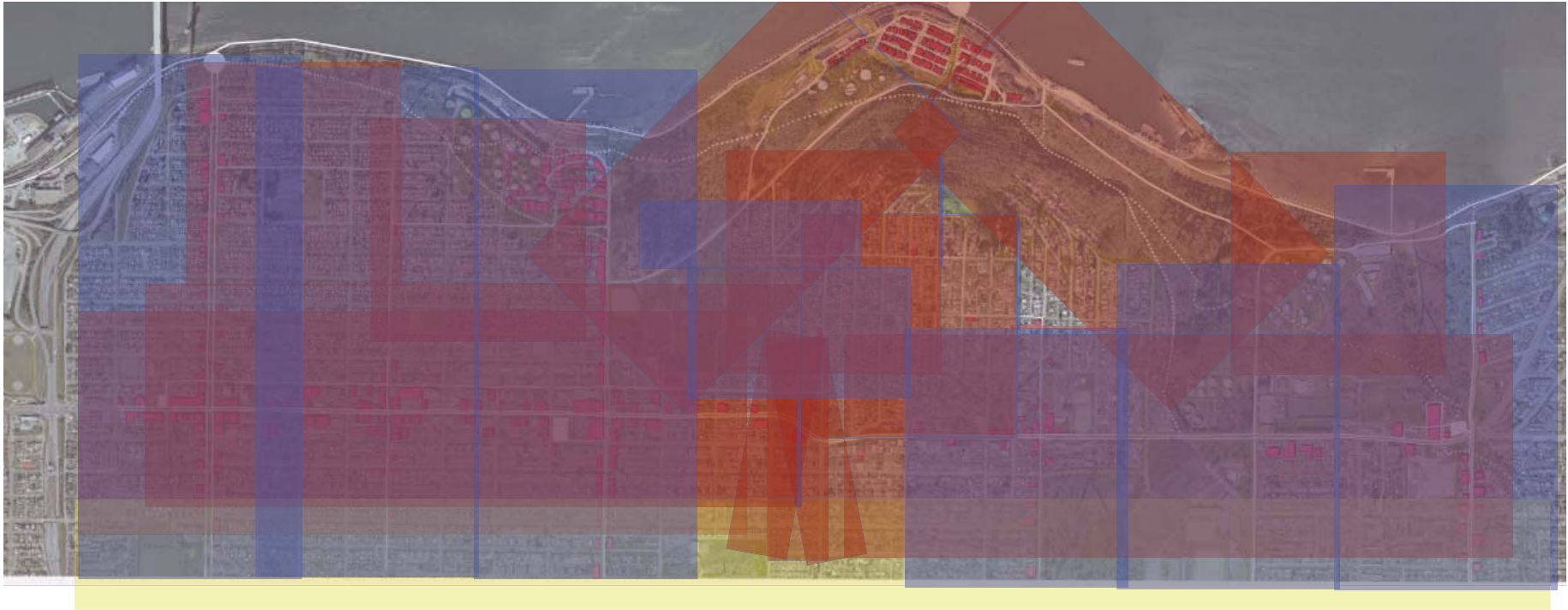
Additional Residential Units




- | | |
|---------|---------|
| 1: 4500 | 6: 390 |
| 2: 705 | 7: 195 |
| 3: 650 | 8: 235 |
| 4: 225 | 9: 585 |
| 5: 200 | 10: 314 |

Strategic Plan

Phase 3. 2030

Gradient: 200m Transit Access



-  east-west
-  north-south
-  north-south, adjacent to site transit route

Strategic Plan

Phase 3. 2030

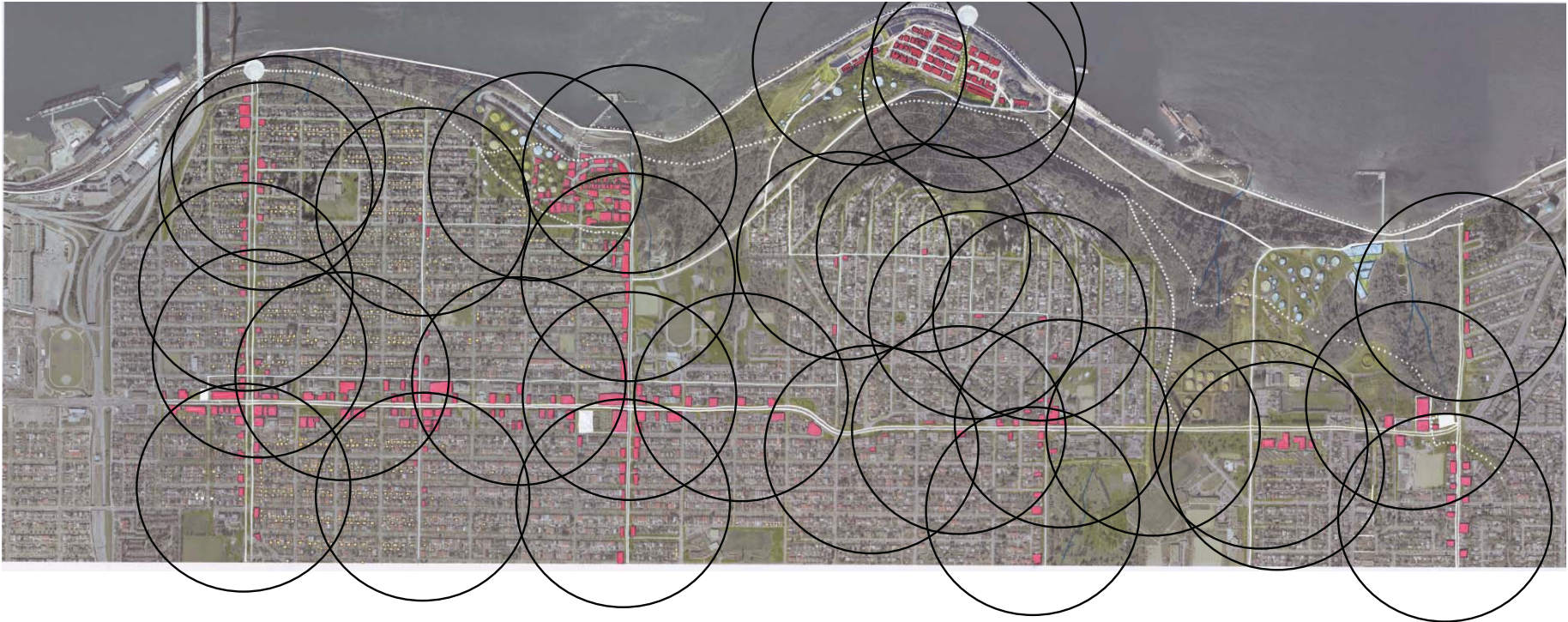
Dynamic Equilibrium: Regional Systems



Strategic Plan

Phase 3. 2030

Self Sufficiency: 400m Commercial Amenity Access



Strategic Plan

Phase 3. 2030

Hastings Street Character: The Heights



Strategic Plan

Phase 3. 2030

Alley Character: The Heights



Appendix

Density Allocation Table

Additional Commercial

| COMMERCIAL SPACE CALCULATIONS | |
|--------------------------------------|--|
| LOCATION | AMOUNT (FLOOR AREA IN m ²) |
| Area at base of Willingdon | 28 000 m ² 7 500 m ² |
| NW Corner of Sperling | 20 700 m ² |
| Along Hastings | 52, 618 m ² |
| Surrounding transit node | 32 000 m ² |
| TOTAL REQUIRED | 3500 jobs x 14 m ² (150sqft) = 48 775 m ² 2500 jobs x 18.6 m ² (200sqft) = 46 450 m ² 95 225 m² |
| TOTAL PROVIDED | 103, 703 m² (8.9% extra) |
| SUMMARY | * This does not include: <ul style="list-style-type: none"> - commercial components of mixed use along Boundary, - Willingdon and Holdom - the employment created by eco-industrial and civic/institutional areas |

Appendix

Density Allocation Table

Additional Residential

| RESIDENTIAL SPACE CALCULATIONS | | |
|--------------------------------|---|-----------------------------|
| LOCATION | AMOUNT (D.U. = DWELLING UNITS) | |
| All SF Residential @ +1 | | 4 500 d.u. |
| 'Heritage Heights' @ +2 | 940 d.u. x 75% coverage = | 705 d.u. |
| Along Hastings | | 650 d.u. |
| Along Boundary | 8.6 acres mixed use = | 225 d.u. |
| Willingdon (North side) | | 200 d.u. |
| Willingdon (South side) | | 390 d.u. |
| Holdom | | 195 d.u. |
| Kensington Plaza | (Kensington Plaza) 105 d.u. Sperling end of site, existing commercial convert to mixed use 2.5 acres = 65d.u. + 26 d.u. + 39 d.u. = | 235 d.u. |
| Sperling (edge of site) | 390 d.u. + 195 d.u. = | 585 d.u. |
| Surrounding transit node | | 300 d.u. |
| TOTAL REQUIRED | | 7 500 d.u. |
| TOTAL PROVIDED | | 8100 d.u. (3% extra) |
| SUMMARY | 300 additional units flexibility in terms of secondary suite conversions | |

Appendix

Zoning Analysis

Pillars and Values

| | ECOLOGICAL | SOCIAL | (INFRA)STRUCTURAL | ECONOMIC |
|---------------------|---|---|--|--|
| RESILIENCY | <ul style="list-style-type: none"> - Natural Systems > Conventional Engineering - High Interconnectedness > Low - Biodiversity > Homogeneity - Large Reserves > Small Reserves - Wide Natural Corridors > Narrow - Redundant Reserves > Singular | <ul style="list-style-type: none"> - Recognize & respect value of embedded memory - Cultivate existing social condensers - Facilitate diversity of demographics, tenures, and architectural typologies - Celebrate 'Sense of Place' - Reinforce local identity through important events (e.g. Hats off day, Halloween in the Heights, etc) | <ul style="list-style-type: none"> - Primacy of Pedestrian > auto-orientated - Priority given to systems based on highest degree of synergy achieved (i.e. number of 'layers' successfully integrated/interacting) - Simplicity > Complicatedness - Decentralized (local) systems > Centralized systems - Optimized function depends upon diversity / redundancy | <ul style="list-style-type: none"> - Provide diversity of housing choices (types, sizes, tenures) - Local Markets > Global Commerce - Encourage innovation (by providing incentives to 'niche markets' compatible with pillars) - Ensure taxation strategies adapt according to optimized performance of local systems - Chain Stores as 'Boutiques' rather than 'Big Boxes' |
| GRADATION | <ul style="list-style-type: none"> - Gradated links between natural forms/ systems and human forms/ systems <p>[e.g. ↑ natural towards East and Burrard Inlet, ↑ man-made towards Burnaby Heights + Hastings Corridor]</p> | <ul style="list-style-type: none"> - Human → Nature - Public → Private - Transparent → Opaque - Fast → Slow - Loud → Quiet - New/Young → Old - Individual → Block → Neighborhood → Community → Region | <ul style="list-style-type: none"> - Individual behaviors ⇒ global impacts, so systems must facilitate changes at all scales of interaction - Transparent systems → Invisible systems - Public spaces → Service spaces - 'Natural' → Engineered | <ul style="list-style-type: none"> - Local shops → Larger Chain Stores |
| DYNAMIC EQUILIBRIUM | <ul style="list-style-type: none"> - Regulate CO₂ (GHG) levels - Maintain harmonious balance between: <ul style="list-style-type: none"> - natural and constructed environments - natural and constructed systems - Humans / plants / animals - Ensure local area flows positively contribute to systems of their larger regional context | <ul style="list-style-type: none"> - Maintain harmonious balance between social systems and ecological systems - Maintain harmonious balance between diverse demographics, tenures, and interests - Respect the old (heritage, traditions, urban fabric, systems) and embrace the new | <ul style="list-style-type: none"> - Inputs and Outputs of system flows must be balanced, and must contribute neutrally or (ideally) positively to systems of broader context [re: water, waste, energy, materials, people, etc.] | |
| SELF SUFFICIENCY | <ul style="list-style-type: none"> - Natural 'Nature' > Man-Made Nature (i.e. self regulating systems > mechanically regulated ones) - Prioritize optimized function > maximized function - Decentralized (local) systems > Centralized systems - Cultivate synergies between social and ecological systems (local community as integral part of natural world) | <ul style="list-style-type: none"> - Community must allow all residents to meet hierarchy of needs (Psychological, safety, love/belonging, self esteem, self actualization) [e.g. 'Enabling Spaces' nurture individual health & social interaction] - Bottom-up governance structure - Encourage diversity; yet maintain local identity, and establish local autonomy | <ul style="list-style-type: none"> - Prioritize optimized function > maximized function - Decentralized (local) systems > Centralized systems - Redundant systems > Singular systems - Diversity > Homogeneity - Natural 'Nature' > Man-Made Nature (i.e. self regulating systems > mechanically regulated ones) - Innovation > Convention | <ul style="list-style-type: none"> - Provide diversity of housing choices (types, sizes, tenures) - Provide incentives to encourage Local Markets - ↑ DCC's for ↑ Polluters & Chain stores - Encourage innovation (by providing incentives to 'niche markets' compatible with pillars) - Ensure taxation strategies adapt according to optimized performance of local systems |

Appendix

Zoning Analysis

Performance Targets

| | PROVINCIAL STRATEGIES 2020 | | PROV 2050 | BURNABY STRATEGIES 2030 | | PERFORMANCE INDICATORS |
|----------------|--|--|---------------------|--|--|--|
| | PERF. TARGET | PERFORMANCE STRATEGY | PERF. TARGET | PERF. TARGET | PERFORMANCE STRATEGY | |
| GHG | 33%↓ | <ul style="list-style-type: none"> Carbon Tax Create Cap & Trade system <p>"To meet its climate action targets, the province must reduce emissions by another 9 million tons by 2020—over and above the initiatives in Phase 1 of the BC Climate Action Plan."</p> | 80%↓ | NET ZERO To NET POSITIVE | <ul style="list-style-type: none"> Offset locally via IPZ (Interactive Performance Zoning ...) | <ul style="list-style-type: none"> GHG |
| LAND USE | | <ul style="list-style-type: none"> "Climate Action through Zoning...but they don't say how" Rights for municipalities to create new DRMs (as per Bill 27 - "Green Communities Act") Protect ALR | | INTERACTIVE PERFORMANCE | <ul style="list-style-type: none"> IPZ opposed to Euclidean | <ul style="list-style-type: none"> GHG 100 quality + quantity (i.e. infiltration rates) Air quality / Pollutants Food Production Conservation RFPs |
| TRANSPORTATION | 10%↓ 2x MODE SHARE of cycling & walking | <ul style="list-style-type: none"> Measure intensity in lifecycle ("wheels to wheels") approach—takes into account all emission-creating activities related to use and production of fuel, incl. land-use changes that result from biofuel production. ↑ use of Marine and Rail transportation (possibly thru dev on inland container port) 2x transportation mode share of cycling and walking (by 2020) 1.4 Billion plan to double transit ridership "Freight traffic accounts for > 50% of BC's transportation emissions." "Passenger vehicle traffic accounts for 37% of BC's transport emissions." "A large proportion of truck trips thru the Lower Mainland ports either enter or leave empty." | = | 80%↓ Auto Dependency 100%↓ Fossil Fuel Dependency | <ul style="list-style-type: none"> Prioritize pedestrian (and human scaled) traffic over all other forms Reappropriate streets for people (not cars) Phase out parking Increase bus/trolley infrastructure Re-establish inter-urban rail line (and make adaptive to readily accept future technologies) Introduce inter-urban Ferry ("Sea Bus") * Tax kms travelled according to CO₂ produced (exponentially increase taxes on larger polluters) | <ul style="list-style-type: none"> Pollutants (particulate, etc) Noise (intensity of audio flows) Speed (rates of flow) (as measure for controlling traffic volume and intensity) Transit ridership totals Bike / Electric car commutes usage |
| ENERGY | PROVINCIAL ENERGY INDEPENDENCE | <ul style="list-style-type: none"> Become Energy independent via clean & renewable electricity generation (create surplus) Accelerate CO2 capture & storage Create "Conservation Culture" new BC Bioenergy Strategy | = | LOCALLY ENERGY INDEPENDENT NET ZERO To NET POSITIVE | <ul style="list-style-type: none"> Fund / provide incentives for locally sustainable alternative energies Encourage (via funding) innovation Educate + regulate to shift patterns of behavior across all scales ** Energy & Economies based on Current Solar Income ** Human Power | <ul style="list-style-type: none"> Energy consumed Energy produced Sources of production (local v.s. imported, sustainable v.s. non) |
| WASTE | | <ul style="list-style-type: none"> End dependency on landfills for municipal solid waste → via pollution prevention hierarchy (Waste Management Plan) | | ELIMINATE CONCEPT OF WASTE | <ul style="list-style-type: none"> Mandate Aggressive Integrated WMP (i.e. IRM) Cultivate (fund) provide incentives for ↓ Local Consumption + ↑ Local Reuse & "Upcycling" | <ul style="list-style-type: none"> Amount of solid waste to landfill (total & by sector) |
| INDUSTRY | REGULARLY ↑ CARBON TAX | <ul style="list-style-type: none"> Tax Industrial Processes → Reduce at refinery Carbon Cap & Trade system ...but no performance targets mandated | ANNUAL ↑ CARBON TAX | ALL INPUTS BALANCED WITH ALL OUTPUTS | | <ul style="list-style-type: none"> Pollution Noise Odor Material flows |
| | | <ul style="list-style-type: none"> Protect ALR ...but no performance targets mandated | | ALL INPUTS BALANCED WITH ALL OUTPUTS | | <ul style="list-style-type: none"> Production levels Consumption levels |
| INFRASTRUCTURE | | <ul style="list-style-type: none"> Ensure federal provincial infrastructure funding directly tied to resiliency ...but no performance targets mandated | | ALL INPUTS BALANCED WITH ALL OUTPUTS | <ul style="list-style-type: none"> Mandate Aggressive Integrated IRM | |
| FOREST SECTOR | | <ul style="list-style-type: none"> Include forests, land use, the forest product sector, bioenergy and other renewable wood-driven bio-products in the government's climate action strategy "Net Zero Deforestation" "Taxes for Tomorrow" ...but no performance targets mandated | NET ZERO | CO ₂ ABSORBED > CO ₂ RELEASED | <ul style="list-style-type: none"> Recognize natural forests as carbon sinks Create new DRMs for conservation and reforestation | |
| COMMUNITIES | | <ul style="list-style-type: none"> Create "regulatory regime" that encourages compact, smart community "Forests for Tomorrow" ** Green Communities legislation (Bill 27) | | SENSE OF PLACE SENSE OF IDENTITY LOCAL AUTONOMY | | <ul style="list-style-type: none"> Health Happiness |
| EDUCATION | | <ul style="list-style-type: none"> Educate citizenry re: importance of climate change and how their actions lead to + or - impacts Incorporate climate issues into curricula for grades K-12 Use museums, libraries and online social marketing tools to involve youth in climate action. ...but no performance targets mandated | | PARADIGM SHIFT INVOLVING 100% OF LOCAL POPULATION | <ul style="list-style-type: none"> Sustainability-centric curricula in K-12 Emphasis on life long learning Funding to cultivate learning and exchange of ideas as community condenser—funding allocated to projects creating "enabling spaces" for open exchange Raise level of awareness & understanding—to create behavioral change through inspiration | <ul style="list-style-type: none"> Test scores Percent of behavioral changes |
| ECONOMY | | <ul style="list-style-type: none"> "Niche-market regulation" New financing mechanisms for residential and commercial retrofits Funding for incl. renewable technologies in bldgs Restructuring Property Tax assessments to provide incentives for energy efficiency and on-site district renewable energy Carbon Tax = 300/tonne (Carbon Tax (alone) = 3 million tonne ↓) | | LOCALLY SELF SUSTAINING | <ul style="list-style-type: none"> Regulated support for Local businesses and local markets Regulated support for "Niche-Markets" Priority of funding & incentives given to those markets/businesses which: <ul style="list-style-type: none"> OPTIMIZE performance at all scales Cultivate local synergies Demonstrate innovation | <ul style="list-style-type: none"> # of local jobs Amount of local imports Amount of local exports |
| BUILDINGS | Some NET ZERO | <ul style="list-style-type: none"> All publically funded buildings Net Zero by 2016 All new construction Net Zero by 2020 Update Green Building Code every 3 years (min) | Some more NET ZERO | ALL NET ZERO to NET POSITIVE | <ul style="list-style-type: none"> All new construction Net Zero to Net Positive All new renovations/retrofits Net Zero to Net Positive Use "Interactive Performance" to balance inputs & outputs of rest of urban fabric | <ul style="list-style-type: none"> Material flows Building lifecycle Energy modeling Commissioning |

Appendix

Zoning Analysis

2030 Challenge



*“The independent Stern review estimates that **failing to act on climate change could result in costs and risks equivalent to losing 20% of global GDP.** By contrast, the report says that **the cost of early action can be limited to about 1% of GDP.**”*

*“In April 2008, Stern further strengthened his earlier conclusions by noting that the Stern Review had **‘badly underestimated the degree of damages and the risk of climate change’** and clearly demanded immediate action.”*

[from the BC Climate Action Plan Report , July 2008]

Appendix

Zoning Analysis

Existing Burnaby Zoning Districts

| TYPOLOGY | DENSITY/INTENSITY | SETBACKS & BLDG HEIGHT | TEMPORAL INTENSITY | BYLAW REQUIREMENTS (Permitted Uses, Conditions of Use, etc.) | TYP. DESIGN REQUIREMENTS |
|--|---|---|--|--|---|
| CD – COMPREHENSIVE DEVELOPMENT | <ul style="list-style-type: none"> Provides for the development of an area embracing one or more land use classifications as an integrated unit based upon a CD plan. Any permitted uses shall conform to the regulations and intent of the Districts in which they are normally permitted, provided that all buildings, uses and their densities shall be compatible with abutting land uses and provide a desirable and stable environment in harmony with that of the surrounding area. Exceptions may be permitted (provided that such exemptions result in an improved relationship between the various parts of the proposed development). | | | | |
| R – RESIDENTIAL (SINGLE FAMILY) | <ul style="list-style-type: none"> Typical densities of 2.5 – 8 du/acre (SmartGrowth recommends 16du/acre) | | <ul style="list-style-type: none"> Human flow patterns vary w/ demographic/employment, etc. Material flows on (bi) weekly cycle (i.e. garbage, recycling) generally ↓ activity from 10pm – 6am | | <ul style="list-style-type: none"> need interconnected street network to be efficient require access to (private) outdoor play space generally perform poorly on transit-supportive objectives (barely support 2 buses/hour) |
| R – RESIDENTIAL (WITH COACH HOUSES) | <ul style="list-style-type: none"> Single family area of 3.5 – 8 du/acre can often ↑ density by 50% | | <ul style="list-style-type: none"> similar human and material flows as above but with ↑ intensity can marginally ↑ activity between 10pm – 6am | | <ul style="list-style-type: none"> ↑ housing diversity over SF ↑ affordability over SF ↑ support for transit service over SF yet allow scale and character of neighborhood to be kept * Ability to preserve heritage housing forms with 2x or 3x density (refer to Vancouver RT-6, RT-7, RT-10 zoning) |
| RM – MULTI-FAMILY (GROUND-ORIENTED) | | | <ul style="list-style-type: none"> highest flow volumes in rush hr OR not, (depending on users) similar human and material flows as above but with ↑ intensity can marginally ↑ activity between 10pm – 6am | <ul style="list-style-type: none"> Duplexes/ fourplexes Row houses Stacked townhouses | <ul style="list-style-type: none"> good for supporting nearby shopping areas and transit with freq. of 20 min or less (3-4 buses / hr) Can be built by large or small developers ↑ energy efficiency than SF |
| RM – MULTI-FAMILY (VERTICAL – HD) | | | <ul style="list-style-type: none"> highest flow volumes in rush hours human and material flows greatly ↑ in intensity and frequency can support noticeable ↑ in nocturnal activity | <ul style="list-style-type: none"> Apartments Towers | <ul style="list-style-type: none"> good for providing affordable rentals (sometimes) can support ↑ transit can be 30%+ energy efficient concrete construction ↑↑ economical after 8 storeys can create impeding disconnect between inhabitants and public realm (but this depends on design, location, and quantity) |
| C1 – NEIGHBORHOOD COMMERCIAL | <p>Provides for the convenience shopping of persons residing in the adjacent residential areas and permits only such uses as are necessary to satisfy those limited basic shopping needs which occur daily or frequently (therefore Require shopping facilities in close proximity to dwellings)</p> | <ul style="list-style-type: none"> Front Yard: min 9m Side Yard: ea. side min. 3m, corner lot min 4.5m Rear Yard: min 9m | | <p>Permitted uses:</p> <ul style="list-style-type: none"> Banks Shopping Centres Business and professional offices Cafes or restaurants gasoline service stations Personal service establishments including: <ul style="list-style-type: none"> barbershops, beauty parlours, dry cleaning establishments, electrical appliance repair shops, outdoor produce shops, florist shops, luncheonettes, optical or watch repair shops, outdoor garden shops (for not more than six months in any year), photographic studios, shoe repair shops, tailor shops, drapery shops and similar establishments Retail stores: Catering to the day-to-day shopping needs of the residents of the local neighbourhood and the retail sale of used books and clothing One dwelling unit limited to the proprietor of the premises and his immediate family, within a commercial building, provided that: <ul style="list-style-type: none"> If located on the same level as the commercial use it shall be located behind the commercial use and not closer than 6.0 m (19.69 ft.) to the front of the building It is fully separated from the commercial use with the main street access to the dwelling unit being entirely separate from the related commercial use | <ul style="list-style-type: none"> Accessory buildings and uses Liquor licence establishments Photocopy services Animal beauty parlours |
| C2 – COMMUNITY COMMERCIAL | <p>Provides for daily and occasional shopping needs of residents of several neighbour-hoods</p> <ul style="list-style-type: none"> Min lot area = 560m² Min lot width: 15m Min lot coverage = 50% lot area Max FAR = 1.00 Max bldg height = 12m nor 3 storeys 3rd storey of any bldg setback a min of 3m from 2nd storey facade (of front & rear) | <ul style="list-style-type: none"> Front Yard: 2m Side Yard: min. 3.5m, except where abuts A, R, RM lot or sep. by street OR land, side yard not less than abutting lot (but > 3m) Rear Yard: min 3m or 6m (if next to A,R, RM) | | <p>Uses permitted:</p> <ul style="list-style-type: none"> Animal hospitals Banks Bottle return centers Business and professional offices Clubs/lodges Gas stations Commercial schools, self-improvement schools Public assembly/entertainment Retail stores/ shopping centers Taxi dispatch Liquor license establishments Retail sale of new/used furniture <p>Every use shall be conducted w/in completely enclosed building, except for: parking, gas services, outdoor produce shops/garden shops, outdoor seating at cafes</p> <ul style="list-style-type: none"> All goods produced on premises shall be sold at retail on same No residential <p>all principle uses shall be orientated to pedestrian needs and located/designed to avoid vehicular interference w/ pedestrian movement</p> | |

Appendix

Zoning Analysis Existing Burnaby Zoning Districts

| | | | | | | |
|---|--|---|--|--|---|--|
| <p>C4 – SERVICE COMMERCIAL</p> | <p>Provides for accommodation of vehicular oriented commercial uses of low intensity, and for commercial uses requiring large areas for storage and handling of materials, goods, and equipment [i.e. favors auto-orientated, 'big box', and opaque operations]</p> <ul style="list-style-type: none"> - Max lot coverage = 50% - Every use shall be conducted w/in completely enclosed building, except for: display, rentals/sales /storage yards, parking, gas stations, outdoor seating cafes | <p>Max height = 9m</p> <ul style="list-style-type: none"> - Front Yard: min 2m - Side Yard: 0m - 3m on corner lot (6m adj. A/R/RM/PS) - Rear Yard: 3m - 6m next to A/R/RM | <p>Uses permitted:</p> <ul style="list-style-type: none"> - Animal hospitals, training/daycare, salons - Auto showrooms, service & repair, retail - Banks - Body rub salons - Bottle return centres - Business and professional offices - Cafes/restaurants - Car washing/ drive-in businesses - Commercial nurseries & greenhouses - Cyber centres - Delivery & express facilities - Truck/trailer rentals | <ul style="list-style-type: none"> - Discotheques - Gas stations - Wine/beer kit sales - Frozen food lockers - Liquor license estab.s - Studios - Funeral parlors - Gas stations - Grocery stores - Fitness & health facilities - Labs/scientific research - Motels/ motor hotels - Offices, storage buildings/yards (excl. manuf.) | <ul style="list-style-type: none"> - Parking - Public transportation depots - Public assembly - Retail building supply - Studios - Tool repair/retail - Trade schools | |
| <p>C5 – TOURIST COMMERCIAL</p> <p>C6 – GASOLINE SERVICE STATION</p> | <p>Provides a rational pattern of service station outlets to adequately serve the requirements of the Municipality in harmony with surrounding developments</p> <ul style="list-style-type: none"> - Max lot cover = 30% - Min width = 30m - Min area = 1 110m² | <p>Max height = 6m</p> <ul style="list-style-type: none"> - Front Yard: 6m - Side Yard: = to adjacent (max 3m) - Or 6m if corner lot - Rear Yard: 3m or 6m if abuts A,R,RM | | <p>Permitted uses:</p> <ul style="list-style-type: none"> - [Exactly as it sounds...] | | |
| <p>C7 – DRIVE-IN RESTAURANT</p> | <p><i>Obsolete – for our purposes</i></p> | | | | | |
| <p>C8 – URBAN VILLAGE COMMERCIAL (HASTINGS)</p> | <p>Provides for wide range of commercial and retail establishments with medium density multiple family dwellings located above the business premises</p> <ul style="list-style-type: none"> - C8 lots intended as core commercial per Hastings street Area Plan - C8a lots as non-core per HSAP - Max lot area = 312m² - Min lot width: 10m (33ft) - Max FAR = 2.0 - Max frontage of 1st storey bldg occupied by individual user: 15m for C8 /20m for C8a | <p>Max Height = 16m or 4 storeys</p> <ul style="list-style-type: none"> - Front Yard: 2m - Side Yard: - Rear Yard: 6m | | <p>Permitted uses:</p> <ul style="list-style-type: none"> - Banks (1st storey frontage max 4.5m wide) - Business & professional (1st storey frontage max 3m) - cafes/restaurants - Commercial schools | <ul style="list-style-type: none"> - Fitness & health facilities - Public assembly/entertainment - Retail - Studios - other random uses permitted <p>For supportive housing—dwelling unit sizes:</p> <ul style="list-style-type: none"> - min 355sqft for studio unit - min 440sqft for j-1Br - min 495 for 1Br - # of studio units not more than 25% <p>Dwelling units on second floor:</p> <ul style="list-style-type: none"> - above first storey - ea must have: <ul style="list-style-type: none"> - balcony - 1 parking space, - completely separate public entrance <p>Storey containing dwelling units to have no other uses on that storey except parking [why is auto storage/display more compatible than spaces for social interaction/commerce?]</p> | <p>^{4*}Heritage structures can form the heart of a community</p> <ul style="list-style-type: none"> - Can turn into "boutique" commercial/mixed use - Demolition controls may be required along with highly flexible zoning to permit creative land uses - big-box (formula developers) can be persuaded to change approach if strong urban design vision exists to persuade them OR can refuse large format retail. Problems incl: <ul style="list-style-type: none"> - Excessive parking - Poor public/pedestrian realm |
| <p>B1 – SUBURBAN OFFICE</p> | <p><i>Obsolete – for our purposes</i></p> | | | | | |
| <p>B2 – URBAN OFFICE</p> | <p><i>Obsolete – for our purposes</i></p> | | | | | <p>- Office parks create enormous traffic problems & land use pigs</p> |
| <p>A1 – AGRICULTURAL</p> | <p>Provides for farming, truck gardening, orchard or nursery cultivation, greenhouses and similar [i.e. FOOD PRODUCTION]</p> <ul style="list-style-type: none"> - encourages holding of land in large parcels - Min lot area = 2ha, min width of 91m - Max residential density of 0.60 FAR. | <p>- Front: min 9m</p> <p>- Side: ea. side min. 4.5m</p> <p>- Rear: min 9m</p> | <ul style="list-style-type: none"> - Agricultural uses imply main activity during daylight hours - Animal keeping will require 18hr days+/- | <p>Uses permitted:</p> <ul style="list-style-type: none"> - single family dwelling - kennel, kennel + animal beauty parlor, riding academies, keeping of bees, cows, goats, horse, etc. (provided all areas min 24.5m from all street or lot lines, and min. 9m from du on same lot), - mushroom growing, pest processing, - centres for collection/storage/grading / crating/pkging of fruitly or vgs (not canning or processing), - farmers markets for retail sale - Roadside stands for retail produce sale prohibited | | |
| <p>A2 – SMALL HOLDINGS</p> | <p>Provides for residential uses desiring large outdoor areas, and for the maintenance of larger parcels of land for possible future development.</p> | <p>- Front: min 9m</p> <p>- Side: ea. side min. 3m, corner lot min 4.5m</p> <p>- Rear: min 9m</p> | | <p>Uses permitted:</p> <ul style="list-style-type: none"> - single family dwelling - Farming, orchard/nursery/greenhouses - Home occupations - Kennels, riding academies, keeping of cows, goats, horses, sheep (provided all areas min 24.5m from all street or lot lines, and min. 9m from du on same lot) - Keeping pigeons or poultry for domestic use - Accessory buildings & uses, BUT roadside stands for retail produce sale prohibited | | |

Appendix

Zoning Analysis

Existing Burnaby Zoning Districts

| | | | | | |
|---------------------------------------|---|--|---|--|---|
| <p>M1 - MANUFACTURING</p> | <p>Provides for accommodation of light manufacturing uses under conditions designed to minimize conflict with surrounding uses.</p> <ul style="list-style-type: none"> - Max lot cover =50% - Min lot area: 930m2 - Min lot width: 30m | <p>Max height = 12m</p> <p>Front: 6m (except 9m across street from R/RM)</p> <p>Side: 3m OR 0 if not beside lane or A/R/RM OR 4.5 if corner lot</p> <p>Rear: 3m OR 9m if abutting A/R/RM</p> | <ul style="list-style-type: none"> - Employee flows can be offset (so not necessarily 9am-5pm) | <ul style="list-style-type: none"> - Manufacturing, preserving, canning of food products - Manufacturing/dying/finishing of textile products - Manufacturing of furniture and fixtures - Manufacturing/assembly of bicycles, etc. - Manufacturing of articles prepared from glass and ceramic material - Printing/publishing/book binding - Storage buildings/yards, mini-warehouses - Agriculture uses <p>- all permitted uses within enclosed bldg (except for : agriculture, outdoor display, rental, sales/storage yvds, pkg)</p> <p>- Nothing which can or will become an annoyance or nuisance to surrounding areas (re: ugly, emissions, effluents, dust, fumes, smoke, vibration, noise...anything that causes health, fire, electrical interference or undue traffic congestion).</p> | <ul style="list-style-type: none"> - On or close to arterials - Require medium to large areas of land for manufacture / storage (amt. depending on type) - typically low customer volumes - Running at night could offset energy demand periods |
| <p>M2 - GENERAL INDUSTRIAL</p> | <p>Provides for accommodation of light manufacturing uses under conditions designed to minimize conflict with surrounding uses.</p> <ul style="list-style-type: none"> - Min lot area = same as M1 - Min width = same as M1 - Max lot cover =60% | <p>Max height = 4 stories</p> <ul style="list-style-type: none"> - Front: 6m deep except 9m across street from R/RM - Side: 3m OR 0m if not beside lane or A/R/RM OR 4.5 if corner lot - Rear: 3m OR 9m if adj. A/R/RM | | <p>Permitted uses: including</p> <ul style="list-style-type: none"> - Production of specific textiles - Specific wood & paper products - Manuf/finishing of specific fabricated metal products - Welding shops less than 560m2 in gross floor area - Manufacture of electrical equipment <ul style="list-style-type: none"> - Manufacture of chemicals - Manufacture of machinery - Public utility buildings - Cafe/restaurants for Indus workers - Shooting ranges - Indoor athletic recreation <p>- all permitted uses within enclosed bldg (except for : agriculture, outdoor display, rental, sales/storage yvds, pkg)</p> <p>- Nothing which can or will become an annoyance or nuisance to surrounding areas (re: ugly, emissions, effluents, dust, fumes, smoke, vibration, noise...anything that causes health, fire, electrical interference or undue traffic congestion).</p> | <ul style="list-style-type: none"> - Recommended to be surround by mixed use - Need to be careful about adjacencies - Involve little commuting traffic (due to low employment densities and few – no customers) - Require large areas of land and are very sensitive to land costs (purchase and taxation rates) - Require easy highway and/or rail/marine access (i.e. freight access) |
| <p>M3 – HEAVY INDUSTRIAL</p> | <p>Provides for the accommodation of special types of industry and heavy industrial activities.</p> <ul style="list-style-type: none"> - Min lot area = same as M1 & 2 - Min width = same as M1 & 2 - Max lot cover = none listed | <p>Max height = 4 stories</p> <ul style="list-style-type: none"> - Front: 6m deep (except 9m across street from R/RM) - Side: 3m / 0m / 4.5m / 6m - Rear: 3–9m | | <p>Permitted uses:</p> <ul style="list-style-type: none"> - Drive-in theatres - Sale and repair of machinery - Welding shops - Manufacturing of wood & paper products - Manufacturing of textiles - Manufacture/processing of flour, grain, feed - Manufacture of electrical equip - Manufacturing/processing/storage of fossil fuel products <ul style="list-style-type: none"> - Manufacture of chemicals - Manufacture of machinery - Metal processing operations - Cargo handling / Storage yards - Auto wrecking yards - Pounds - Cafe/restaurants for Indus.workers - Indoor athletic recreation | <p>** Practices of eco-industrial networking (INDUSTRIAL ECOLOGY) are emerging set of practices for making industrial areas more sustainable</p> |
| <p>M4 – SPECIAL INDUSTRIAL</p> | | | | | |
| <p>M5 - LIGHT INDUSTRIAL</p> | <p>Provides for the accommodation of light industrial uses, encourages a high standard of development and is particularly designed to be located adjacent, or in close proximity to residential areas with a minimum of conflict.</p> <ul style="list-style-type: none"> - Min lot area = same as M1 to 4 - Min width = same as M1 to 4 - Max lot coverage = 50% | <p>Max height = 12m</p> <ul style="list-style-type: none"> - Front: 9m - Side: 6m - Or 0m if not beside A,R,RRM and other side yard min 6m - Rear: 6m (except 9 m where abuts A,R,RRM) | | <p>Permitted uses:</p> <ul style="list-style-type: none"> - Laboratories - Laundries - Nurseries and greenhouses - Radio & tv broadcasting - Sale/rental/repair of equipment - Trade schools - Business & professional offices - Rehearsal & production studios - Manufacturing /preserving/canning of foods - Manufacturing /finishing of specific textiles - Manufacturing specific wood, metal & paper prod.s - Manufacturing furniture products - Living accommodation (for caretaker/watchman (if essential to operations)) <p>Requirements for living accommodations:</p> <ul style="list-style-type: none"> - Located within a new principle bldg with new permitted industrial use, on lot with min area of 0.8ha - for max 2 adults - to form integral part of principal building (to be incl in plans thereof) - to be fully separated from industrial use by walls, partitions or a floor - to be provided with an entrance separate from that of industrial use - to have max floor area of 56m2 (600sqft) <ul style="list-style-type: none"> - Manufacturing and assembly of bicycles - Electronic equipment - Glass and ceramics - Specific chemical products - Packaging of specific products - Printing/pub/book binding - Cafe/restaurants for Indus. workers - Indoor athletic recreation - Storage yards - Agricultural uses (excluding livestock) | <ul style="list-style-type: none"> - Tend to integrate well with most other uses and, as such, can be located in range of areas/spaces - Tend to have steady traffic (due to medium employment densities + flows of customers & suppliers) should be located along convenient transit lines - Such areas depend on a range of floor plates with inexpensive rents |
| <p>M6 – TRUCK TERMINAL</p> | | <p>Obsolete – for our purposes</p> | | | |

Appendix

Zoning Analysis

Existing Burnaby Zoning Districts

| | | | | | |
|--|--|--|--|---|---|
| <p>M7 – MARINE 2</p> | <p>Provides for the regulation and location of water-oriented uses and related activities in proper relationship to surrounding development.</p> | <ul style="list-style-type: none"> - All Yards: 6m OR 0m where abuts another M7 lot | | <ul style="list-style-type: none"> - Fire and police boat facilities and radar installations - Manufacturing, assembly, finishing, retail sale or repair of boats not greater than 15.0 m - Manufacturing, rental, repair and sale of marine sporting goods and equipment - Marinas for the accommodation of commercial boats, which may include such related use as administrative offices, cafeteria services, recreational lounges - Marine fueling installations - Marine research laboratories - Marine surveying and engineering offices - Marine towing and tugboat services and installations - Seaplane mooring facilities and installations - Water taxis - The storage of petroleum products in areas having an M7a designation, provided that such use is located 61 m or more from the zoning boundary of an A2, R or RM District - Accessory buildings and uses, including: <ul style="list-style-type: none"> - Internal display, internal storage and internal retail sale of goods produced /stored on site - Breakwaters, docks, floating boat shelters - Living accommodation for a caretaker or watchman (to be located within, and form an integral part of the principal building and to be included in the building plans) | |
| <p>P1 – NEIGHBORHOOD INSTITUTIONAL</p> | <p>Provides for the accommodation of residentially oriented institutional uses at a scale designed to serve a residential neighborhood.</p> | <p>Max height = 12m/2storeys</p> <ul style="list-style-type: none"> - Front: 7.5m OR 9m where abuts R1 - Side: 4.5m - Rear: 9m | | <p>Permitted uses:</p> <ul style="list-style-type: none"> - Places of public worship - Child care facilities - Dwelling unit for minister/caretaker <p>Conditions of Use:</p> <ul style="list-style-type: none"> - Playgrounds shall be enclosed by fencing/screening on any side not facing principle building - All principle uses shall be oriented to pedestrian needs and be so located/designed as to avoid vehicular interference with pedestrian movement | |
| <p>P2 – ADMINISTRATION & ASSEMBLY</p> | | | | <p>Permitted uses:</p> <ul style="list-style-type: none"> - Ambulance headquarters, Police stations, Fire halls - Assembly, cultural and recreational facilities, including: armouries, art galleries, auditoriums, coliseums, community centres, cultural centres (art, drama and music), curling rinks, gymnasiums, meeting halls, museums, public libraries, skating rinks and arenas, stadiums, swimming pools and theatres (excluding drive-in theatres) - Offices of municipal, provincial and federal governments - Telephone exchanges and similar public utilities, provided they are housed completely within an enclosed building - Accessory buildings and uses, including restaurants and business and professional offices - Antenna developments not included in section <ul style="list-style-type: none"> - Clubs or lodges - Golf driving ranges - Places of public worship <ul style="list-style-type: none"> - Health centres and clinics - Post offices - Public transportation centres - Dwelling unit (for minister or caretaker) | |
| <p>P3 – PARK & PUBLIC USE</p> | <p>Provides for the location, preservation and development of public land to serve the educational, park and recreational needs of the Municipality</p> <ul style="list-style-type: none"> - Min lot area = none specified - Min width = none specified - Max lot coverage = 30% | <ul style="list-style-type: none"> - Front: 6m - Side: 6m - Rear: 9m | | <p>Permitted uses:</p> <ul style="list-style-type: none"> - Assembly, cultural facilities - Recreational facilities - Arboreta, botanical gardens, etc. - Public parks - Public libraries - Public golf courses - Public playfields - Public schools - Dwelling unit for caretaker (if essential) - Liquor license establishments <p>Conditions of Use:</p> <p>All principle uses shall be oriented to pedestrian needs and be so located/designed as to avoid vehicular interference with pedestrian movement</p> | |
| <p>P4 – CEMETERY</p> | <p><i>Obsolete – for our purposes</i></p> | | | | |
| <p>P5 – COMMUNITY INSTITUTIONAL</p> | <p>Provides for accommodation of residentially-orientated institutional uses at a scale designed to serve an area composed of a number of residential neighborhoods</p> <ul style="list-style-type: none"> - Min lot area = none specified - Min width = none specified - Max lot coverage = 40% (30% for private schools/children's institutions) | <p>Max height: 12m/2storeys</p> <ul style="list-style-type: none"> - Front: 7.5m OR 9m where abuts R1 - Side: 4.5m OR 7.5m for schools - Rear: 9m OR 15m for private schools | | <p>Permitted uses:</p> <ul style="list-style-type: none"> - Children's institutions - Places of public worship - Child care facilities - Rest homes, private hospitals - Private elementary/secondary schools - Senior housing - Dormitory units - Home occupations - Supportive housing <p>Conditions of Use:</p> <p>All principle uses shall be oriented to pedestrian needs and be so located/designed as to avoid vehicular interference with pedestrian movement</p> | <p>Community & Recreational Facilities:</p> <ul style="list-style-type: none"> - Provide key community asset that contributes to health and good quality life - Significant demand for off peak hours |

Appendix

Zoning Analysis

Existing Burnaby Zoning Districts

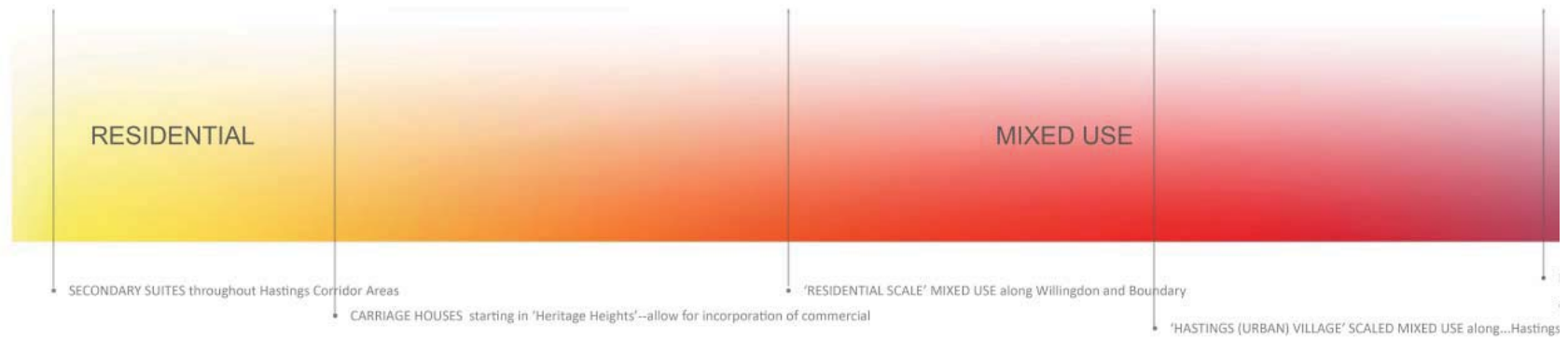
| | | | | | |
|---|---|--|--|--|---|
| <p>P6 – REGIONAL INSTITUTIONAL</p> | <p>Provides for the location and regulation of large scale public institutional uses at municipal, metropolitan or regional level.</p> <ul style="list-style-type: none"> - Min lot area = 2 ha (4.94 acres) - Min width = 91m - Max lot coverage = 40% - FAR: 1.50 | <p>Max height: 37m</p> <ul style="list-style-type: none"> - Front: 0.5 x bldg height (min 9m) - Side: 0.5 x bldg height (min 7.5m or min 15m if abuts A/R/M) - Rear: 15m | | <p>Permitted uses:</p> <ul style="list-style-type: none"> - Colleges - Offices of governments (fed/prov/munic) - Prisons - Tech schools, Universities, vocational schools - Public services & utilities - Liquor license establishments - Residential accommodation (when located on same site as institution it serves) <p>Conditions of Use: All principle uses shall be oriented to pedestrian needs and be so located/designed as to avoid vehicular interference with pedestrian movement</p> | <p>Institutional Uses & Schools:</p> <ul style="list-style-type: none"> - Tend to have 1 major tenant using large area of land, with cluster of secondary, related or associated tenants and land uses - Often include large fields and open space areas - Should be located on major transit routes <p>** Planning needs to incorporate widest diversity of uses</p> |
| <p>P7 – SPECIAL INSTITUTIONAL</p> | <p>Provides for the location and regulation of special institutional uses of a charitable, correctional, philanthropic, rehabilitative or religious character</p> <ul style="list-style-type: none"> - Max lot coverage = 30% | <p>Max height: 12m/2storeys</p> <ul style="list-style-type: none"> - Front: 9m - Side: 4.5m - Rear: 9m | | <p>Permitted uses:</p> <ul style="list-style-type: none"> - Aftercare, parole and rehabilitation centres. - Correctional institutions and half-way houses. - Institutions of a religious, philanthropic or charitable nature. - Accessory buildings and use <p>Conditions of Use: All principle uses shall be oriented to pedestrian needs and be so located/designed as to avoid vehicular interference with pedestrian movement</p> | |
| <p>P8 – PARKING</p> | <p>District provides for the location and regulation of parking areas and parking garages on individual sites in proper relationship to adjacent land uses</p> <p>Max lot coverage = 50% (max building coverage 19m²)</p> | <p>Max height: 12m (for parking garage) 3.5 m (for accessory building)</p> <ul style="list-style-type: none"> - Front: 6m (garage), 1.8 m (lot) - Side: 6m (garage), 0m (lot) OR, 1.8 m if abuts A/R/RM - Rear: 6m (garage), 0m (lot) OR, 1.8 m if abuts A/R/RM | | <p>Permitted uses:</p> <ul style="list-style-type: none"> - [Exactly as it sounds...] | |
| <p>P9 – MARINE 1</p> | <p>Provides for the development and regulation of water-oriented uses, which are of a character designed to ensure a high degree of compatibility with adjacent or nearby public recreational or residential areas</p> <p>Max lot coverage = 30% of land / 20% of water surface</p> | <p>Max height: 12m / 3 storeys</p> <p>Front / Rear / Side Yards: 0m, except that NO setback shall be required on any portion of the lot which adjoins or abuts the High Water Mark</p> | | <p>Permitted uses:</p> <ul style="list-style-type: none"> - Hotels - Marinas for the accommodation of pleasure and recreational boats, which may include such related uses as administrative offices, cafeteria services, recreational lounges; the retail sale of marine supplies, equipment and sporting goods; and boat motor repairs (provided that such repairs are limited to motors of not more than 190 kw) - Private recreational, yacht and boating clubs - Restaurants <p>Accessory buildings and uses, including:</p> <ul style="list-style-type: none"> - Boat hoists, breakwaters, floats, launching ramps, piers and wharves, and other similar facilities related to the mooring, handling and storage of boats - Boat rental establishments - One dwelling unit for a caretaker or watchman in conjunction with a marina, yacht or boating club. - Marine fuelling installations / Water taxis <p>All permitted uses All permitted uses completely within an enclosed building, except boat hoists /launching ramps</p> <p>Any part of the land area of the lot which is not occupied by buildings, parking or loading facilities, driveways, pedestrian walks, boat hoists or launching ramps shall be fully and suitably landscaped and properly maintained.</p> <p>Natural screening to a height of not less than 1.8 m shall be provided and properly maintained along the boundary of a lot which abuts a lot in an A, R or RM District, or is separated by a street or lane</p> | |

Appendix

Zoning Analysis

Alternative Zoning Gradation

Interactive Performance Zoning™



Appendix

Zoning Analysis

Alternative Zoning Gradation

native zoning - gradation

InFlux



Appendix

Zoning Analysis

Alternative Zoning Gradation



/ Ferry Station (near end of Willingdon)--re-
and more synergistic) social functioning

CIVIC ECO/SOCIAL RECRE/EDUCATIONAL INFRASTRUCTURE on remediated industrial lands near Eastern Rail
Terminal--reappropriating green systems from fossil fuel industry for education, recreation, conservation and
celebration

Appendix

Street Phasing

Hastings Street: Phase 1

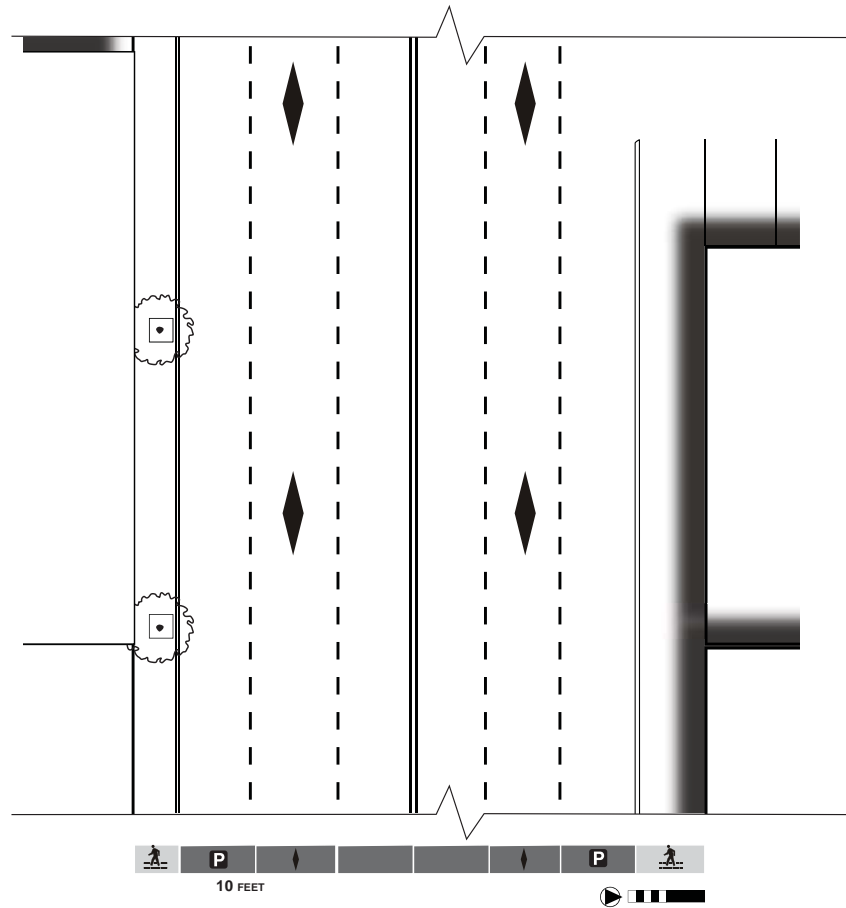
SAMPLE SECTION

Hastings Street 5 Year Plan

- Transit/HOV lanes relocated
- All day streetside parking

LEGEND

-  Vegetated Swale
-  Sidewalk
-  2-Way Bike Path
-  Parking
-  Street
-  Transit Lane



Appendix

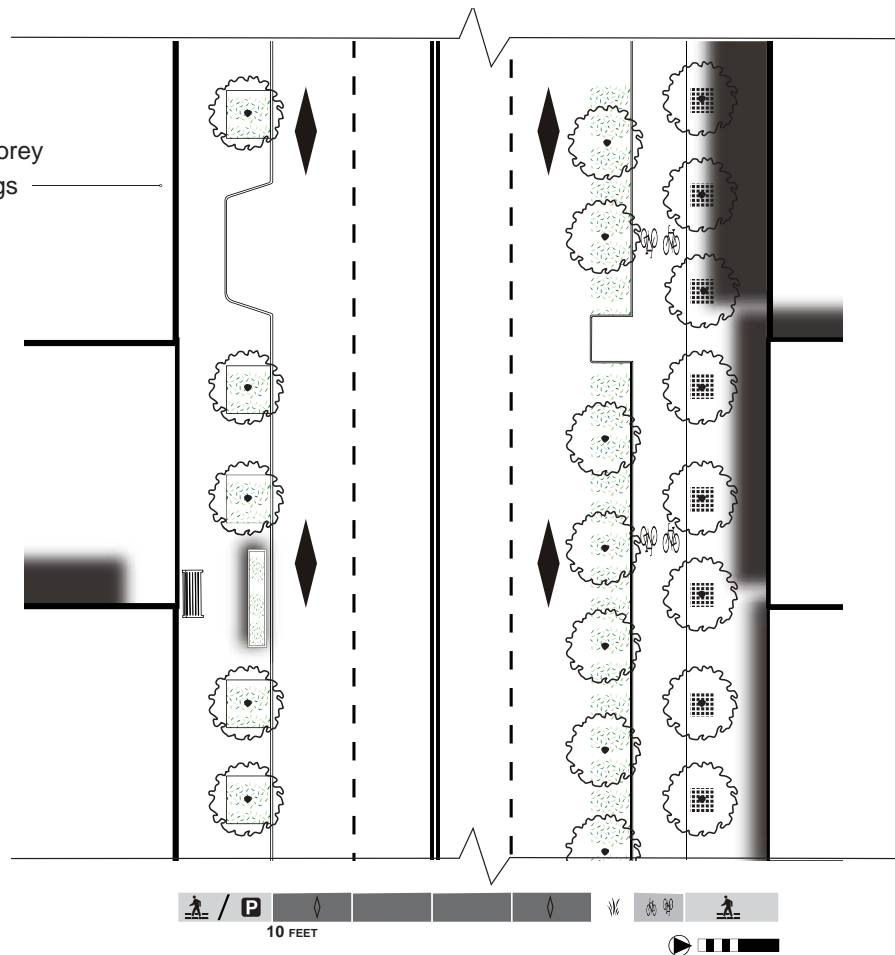
Zoning Analysis

Hastings Street: Phase 2

SAMPLE SECTION

Hastings Street 30 Year Plan

- One-storey buildings replaced by 2- and 3-storey commercial, residential and mixed use buildings



Appendix

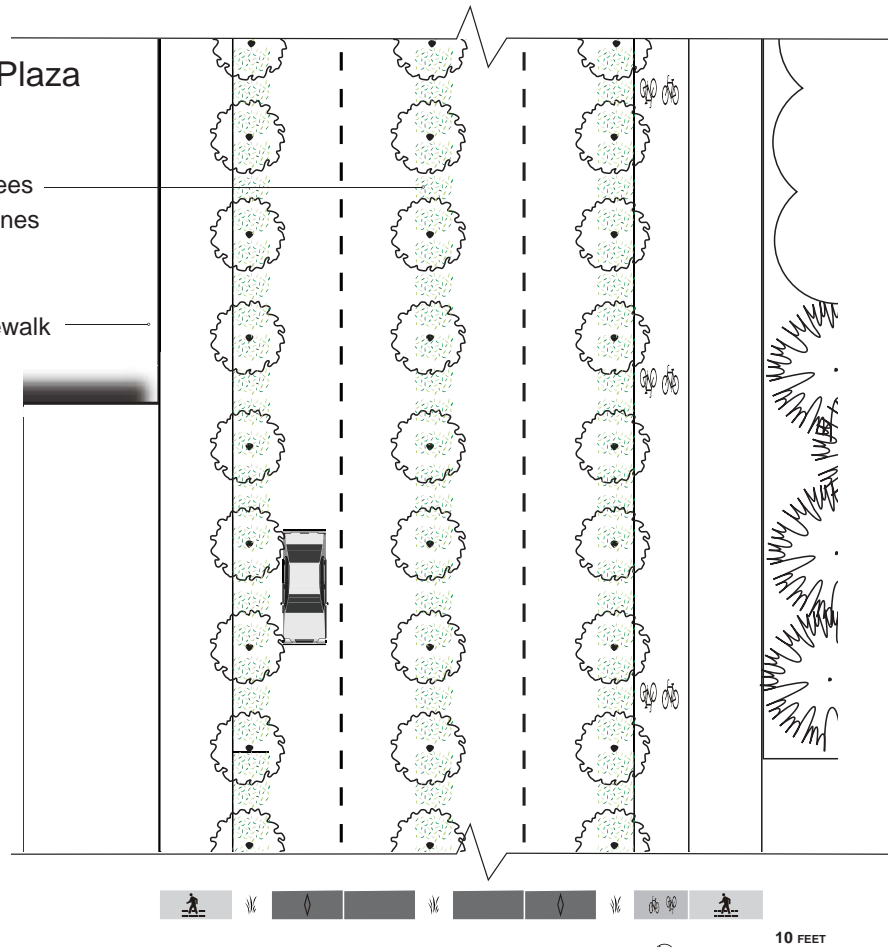
Street Phasing

Hastings Street: Phase 3

SAMPLE SECTION

Hastings Street near Kensington Plaza 30-50 Year Plan

- Boulevard - 5' vegetated swales with street trees separate sidewalk, 10' travel and HOV/transit lanes and 2-way bike lane
- Additional mixed-use buildings built up to sidewalk



Appendix

Zoning Analysis

Hastings Street: Phase 3

SAMPLE SECTION

Willingdon north of Hastings St
30-50 Year Plan

- 5' vegetated swales with street trees buffer sidewalk and 2-way bike lane from street
- Trail through restored park land
- New 2-3 storey mixed-use buildings oriented E-W

