

**A2. Neighbourhood Plans...**

**i) GREEN TIMBERS: INITIATIVES FOR 100-YEAR CHANGE IN A LOW DENSITY SURREY RESIDENTIAL NEIGHBOURHOOD**

A commitment to a well-connected, pedestrian oriented neighbourhood that draws upon local areas of commercial and social activity represents a significant transformation from Surrey’s existing single-family residential neighbourhoods. The result is a self-sustaining community that focuses on higher densities, more efficient energy use, better stormwater retention, and ecological responsibility that begins at the household level and continues to the district scale. In this 100-year vision, most people will live and work within the community, and the auto-dependency culture of today will be replaced with a culture that moves near and far by walking, biking, and public transit.



- 1 On site alternative energy sources and greywater systems
- 2 Sewage, stormwater and greywater treatment
- 3 Parcel retrofit: combining movement with increasing density per acre
- 4 Merging housing and commercial areas with public transit accessibility
- 5 Establishing neighbourhood centres
- 6 Pedestrian/bike-only greenway
- 7 Pedestrian/bike oriented narrow street with an auto lane
- 8 Trolley/auto shared right of way with wide sidewalks and bike lane
- 9 At-grade LRT route with single lane auto, bike lane, and sidewalk

See preceding map for locations of the following proposals...

**1. On site alternative energy sources and greywater systems**

**Parcel:**

Green roofs provide insulation and infiltration

Rainwater collection tank for primary use by the household

Greywater connected to garden watering system

High permeable ecopavers to increase infiltration

100% of organic waste composted

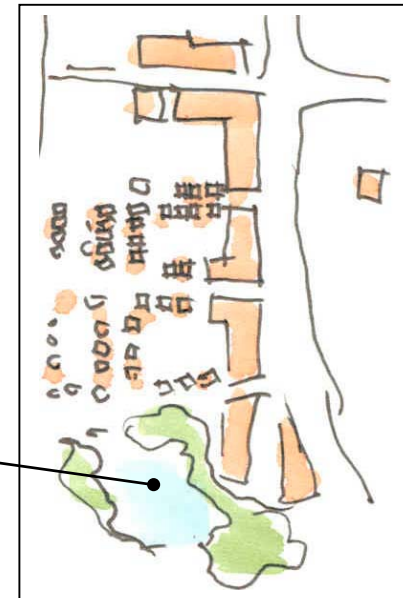


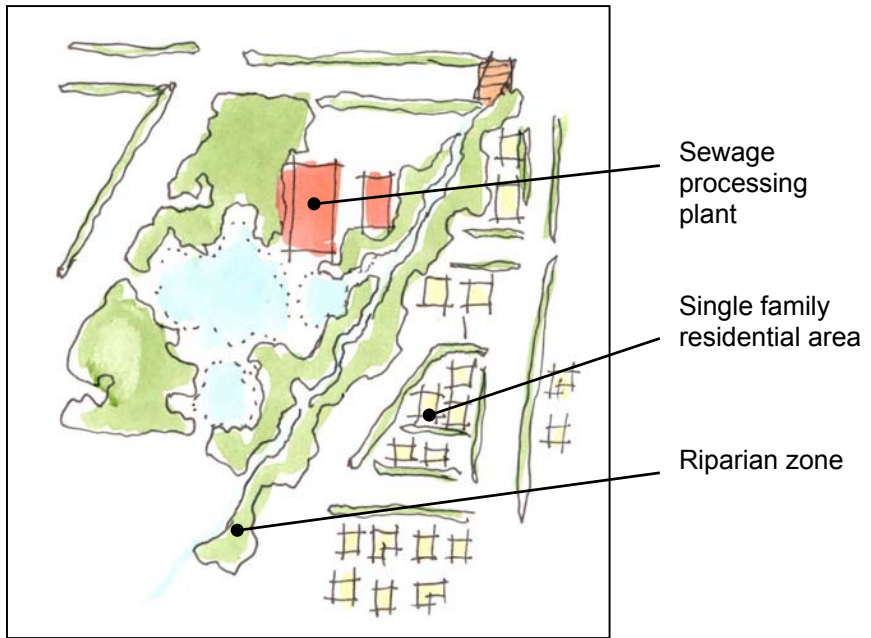
**Block:**

Majority of surface runoff and greywater to be treated in swales and wetland systems at a block scale before release into streams

50% of energy needs produced on the block with a connection to other households and regions to even out energy deficiencies

Retention and wetland system at block level



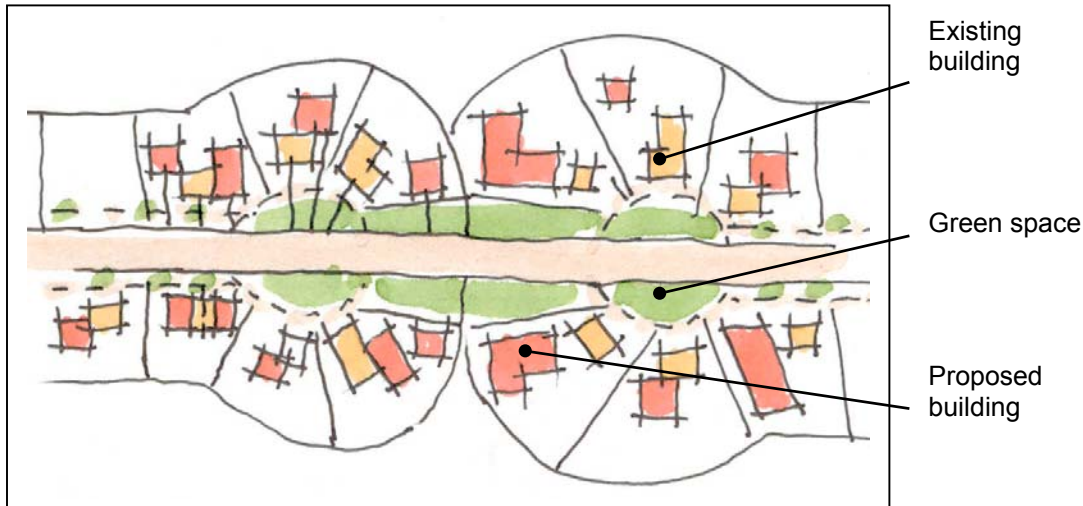


**2. Sewage, stormwater and greywater treatment**

Sewage is treated to a tertiary level at the district scale before being released into the stream system.

Provision is also made for stormwater in high rainfall events where water volumes exceed the capacity of the block systems.

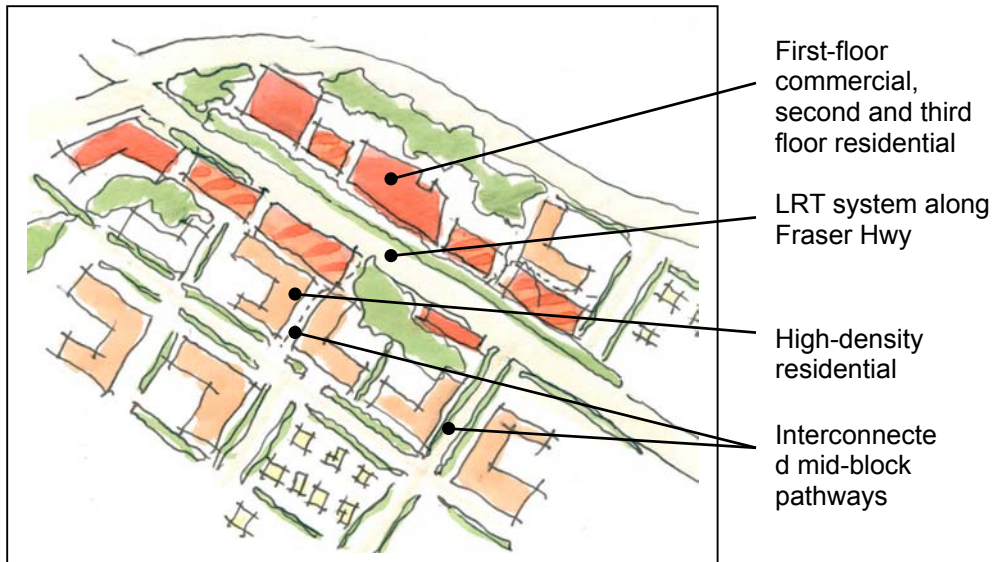
100% of existing streams to be protected and 80% of streams restored



**3. Parcel retrofit: combining movement with increasing density per acre**

Auto/pedestrian/bike shared one lane permeable paver street

High density housing and addition of apartments onto existing housing



**4. Merging housing and commercial areas with public transit accessibility**

Personal services and shopping needs are located within 400m of dwelling units achieved through integration of commercial and residential and densification of building developments

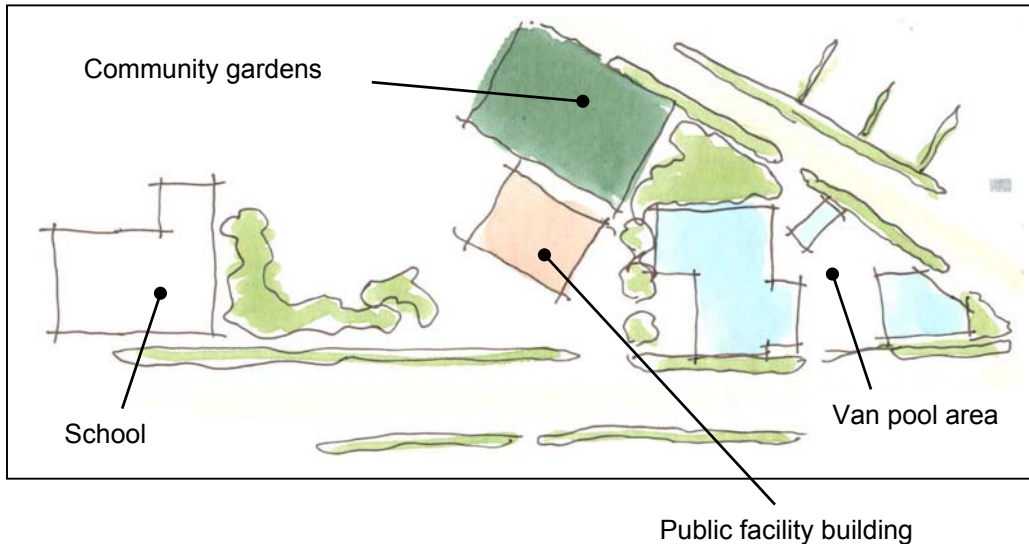
Interconnected pathways to allow 5-min walk accessibility

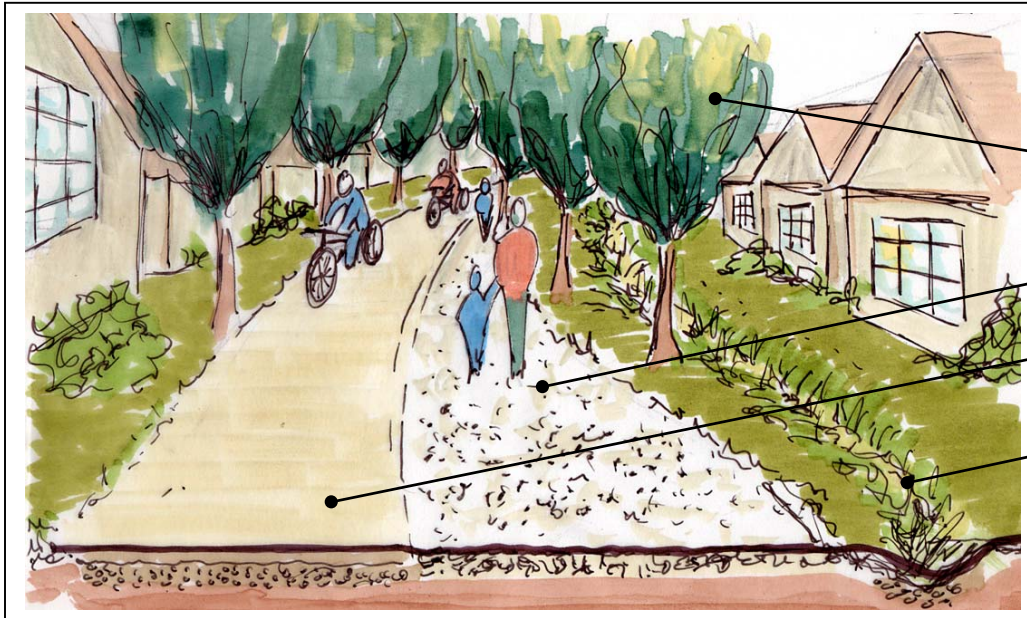
**5. Establishing neighbourhood centres, community gardens and car pooling locations**

80% auto share through car pooling

20% of food to be grown through district green houses and community gardens

One public facility in each block to used for neighbourhood recreation and cultural events, and emergency aid in the event of a disaster





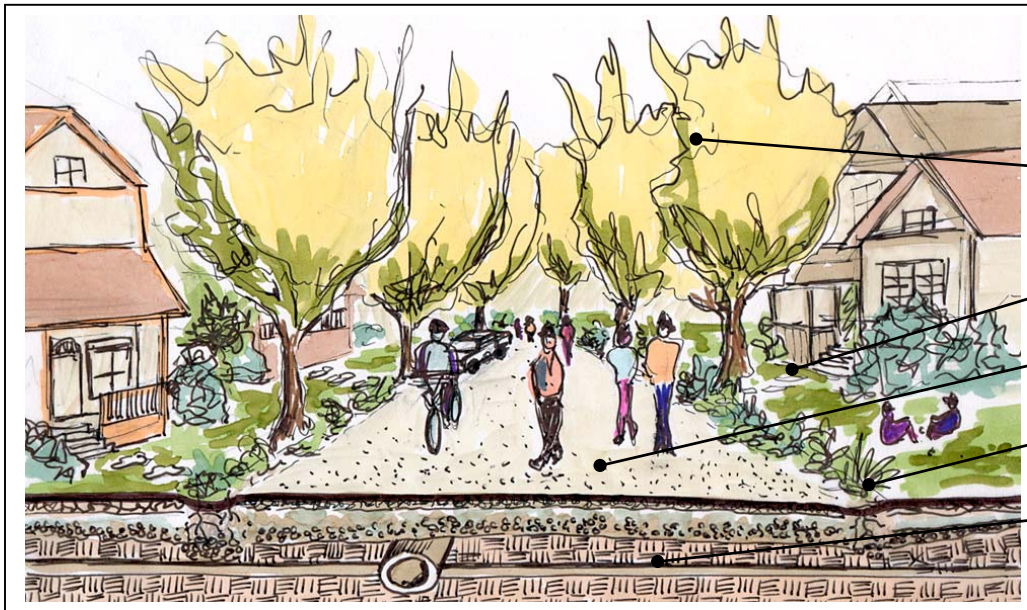
**6. Pedestrian/Bike-only Greenway:**  
*Emerges in place of auto-oriented streets, back lanes, and connector paths*

Vegetation for rain interception

Crushed gravel on pedestrian path for maximum infiltration

Pervious pavement gives locals incentive to bike in all weather while enhancing water infiltration

Biofiltration swale collects stormwater and household greywater; excess greywater gets routed along swale/gravel channels to block or district treatment site.



**7. Pedestrian-oriented narrow street with an auto ROW:**  
*Emerges in place of the dominant auto-oriented residential neighbourhood street.*

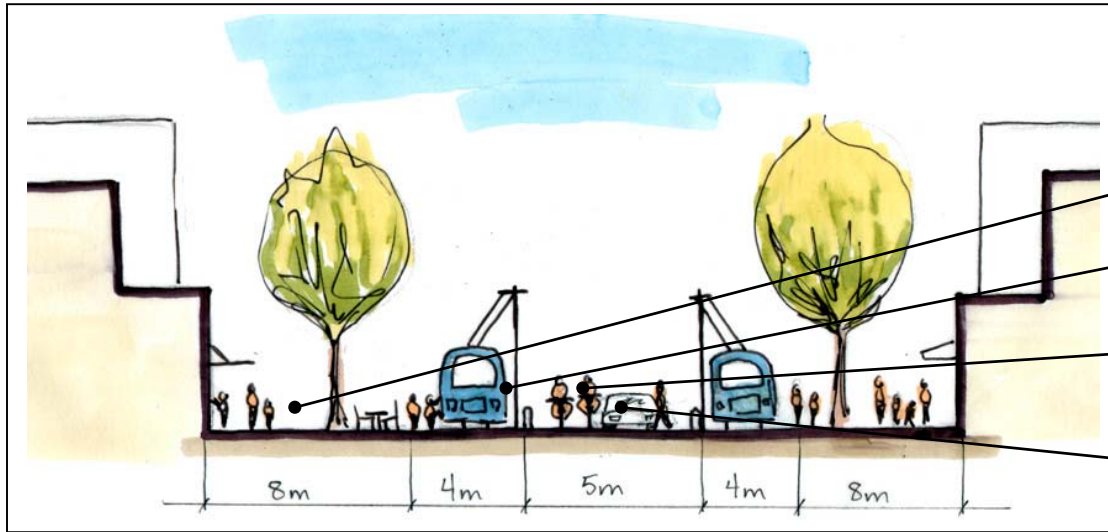
Vegetation for rain interception and street enclosure

Street and porch combination create a vibrant private/public continuum

Pervious pavement for road surface to enable corridor to act as a filtering device

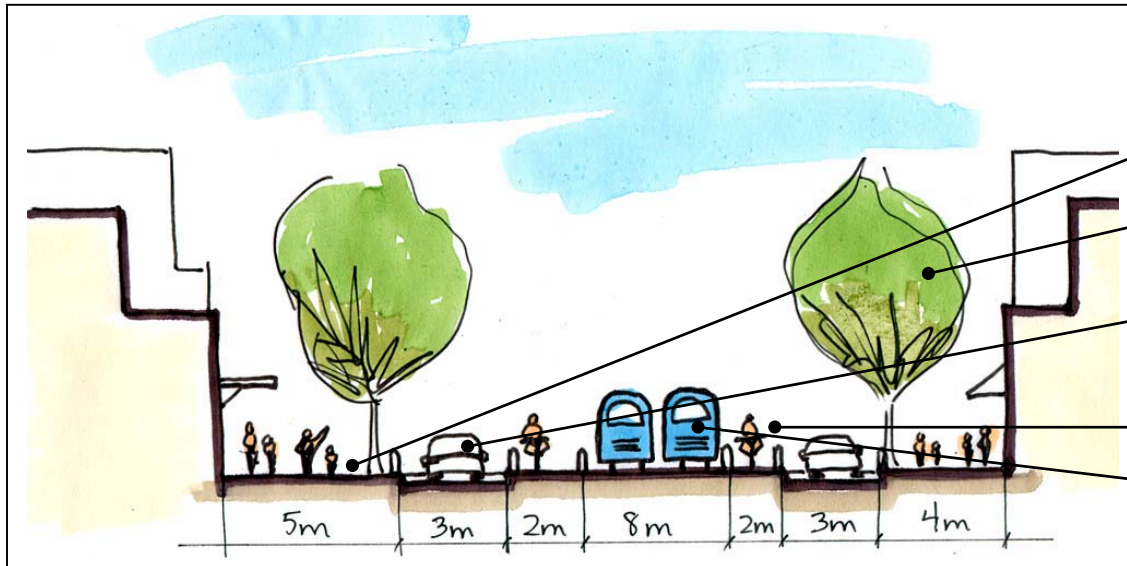
Household greywater is filtered on-site, along roadside swales, and eventually treated at local treatment site

Household sewage remains connected to municipal system but is locally treated at the district treatment centre



**8. Transit-oriented community street with centre bikeway:** *Emerges in place of auto-dominated collector and arterial streets.*

- Wide sidewalk to enhance multi-use social space
- Trolley on rail is at grade of sidewalk to emphasize human scale and is at street side to ensure transit accessibility
- Centre bikeway puts emphasis on biking as a major transportation mode; provides a safe crossing space for pedestrians
- Auto R.O.W (during off-peak hours) will be speed-controlled with bollards, bulb-outs, and pavement variability.



**9. Regional and district street with at-grade LRT:** *Emerges in place of auto-dominated regional/district highway.*

- Sidewalk incorporated to foster commercial and social activity
- Vegetation and bollards provide buffer zone for pedestrians and auto lane
- Auto roadway is lowered and narrow to reduce speed and allow for at-grade pedestrian crossings
- Bike lanes both directions emphasize biking as a community, district and regional commuter mode.
- At-grade LRT emphasizes travel speed and frequency to accommodate high public transit demand.