Goal 4: Build Compact & Complete Communities

Land use patterns have a significant impact on the environment. For example, the density of development and land use patterns affect the amount of land consumed, the amount of separation between land uses, the length of travel distances, and transportation choices. These factors have an impact on energy consumption, particularly for buildings, infrastructure and transportation, as well as emissions of air contaminants and greenhouse gases. Urban sprawl and low densities with predominantly single-family detached residential land use development consumes land and generally results in a high level of automobile dependence.

The environmental benefits of a compact urban form include using land resources more efficiently and reducing pressures on agricultural land and greenspaces. Compact urban form also supports more efficient provision of municipal infrastructure services and reduced levels of automobile dependence.

By building complete communities – places where we can live, work, shop, and play – we can meet our daily needs closer to home, thereby reducing trip distances and reducing our overall reliance on the automobile. Shorter trip distances make walking, cycling, and transit viable transportation options. In addition, increasing the share of multi-unit housing results in more shared wall and floor space, which reduces the heating requirements of buildings. Some of the other benefits of complete communities include better access to key services such as schools, parks, shopping, and transit; more pedestrian-friendly neighbourhoods; and a stronger sense of community as residents have more opportunities to interact.

This section uses several indicators to monitor land use and community development patterns:

- **BCC-1**: Population and Housing Unit Density
- **BCC-2**: Residential Housing Mix
- **BCC-3**: Access to Parks, Shopping and Amenities
- **BCC-4**: Labour Force Working and Living within Richmond
- **BCC-5**: Commuter Trip Distance
BCC-1: Population and Housing Unit Density

Why is this Indicator Important?
Promoting higher density living is one of the main ways we can manage population growth and maintain a compact urban form. Richmond can meet growth management objectives to develop transit-friendly and pedestrian-friendly urban centres and preserve agricultural land and greenspace by concentrating new development in its City Centre.

What is Being Measured?
This indicator looks at changes in residential population and housing density for Richmond City Centre, City of Richmond Planning Areas, the West Richmond Urban Area, and the city as a whole. The measure is gross density, which includes streets, parks, rights-of-way and non-residential land uses in the area.

For the purpose of this indicator, the West Richmond Urban Area is defined geographically to comprise the following Planning Areas: Steveston, Seafair, Thompson, Blundell, Broadmoor, Shellmont, and West Cambie. It excludes the City Centre, Sea Island and Gilmore.

Summary

Status:
Richmond City Centre is becoming a high density, multi-use area. The City Centre and West Richmond Urban Area is now at or approaching levels of density that are supportive of reduced automobile dependence.

Trend:
Population and dwelling unit densities have significantly increased in the City Centre and West Richmond Urban Area over the last 15 years. The City Centre has more than doubled in population between 1990 and 2005.

Outlook:
Density in the City Centre is expected to continue to increase as the City implements its housing-related Official Community Plan policies. Development along the Canada Line will support population and dwelling unit density increases in the City Centre and West Richmond Urban Area. Development constraints in other parts of Richmond will minimize population growth and development in the East Richmond and Gilmore areas.
What is Happening?

In 2005, the City Centre was home to 40,300 people or 22% of Richmond’s residents. These residents occupied 17,065 dwelling units or about 28% of the city’s dwelling stock in 2005. Between 1990 and 2005, the City Centre’s population more than doubled (110% increase), compared to a 32% increase in the rest of the city. Population density within the City Centre climbed from 23.5 persons per hectare in 1990 (11.3 units/ha) to 49.3 persons/ha in 2005 (20.9 units/ha). Over the same time period, the population density in West Richmond, outside the City Centre, rose from 21.2 persons/ha (6.8 units/ha) in 1990 to 26.6 persons/ha in 2005 (8.5 units/ha). City-wide, the gross population density rose from 9.8 persons/ha in 1990 (3.4 units/ha) to 14.0 persons/ha in 2005 (4.8 units/ha).

Fig. 17: Map of Richmond City Centre and Richmond Planning Areas
Figure 19 shows the comparison of gross dwelling unit density in each Planning Area, the West Richmond Urban Area, and city-wide for 1990 and 2005. The largest increases in dwelling unit density have occurred in the City Centre, West Cambie Planning Area, Thompson Planning Area and Hamilton Planning Area.

**Fig. 18: Map of Net Dwelling Unit Densities in Richmond, 2005**

Figure 19 shows the comparison of gross dwelling unit density in each Planning Area, the West Richmond Urban Area, and city-wide for 1990 and 2005. The largest increases in dwelling unit density have occurred in the City Centre, West Cambie Planning Area, Thompson Planning Area and Hamilton Planning Area.
The City Centre and the West Richmond Urban Area population density of almost 50 persons/ha and 27 persons/ha respectively is above that or is approaching the threshold that is generally considered the benchmark for supporting alternatives to the automobile and fostering a reduced level of automobile dependence (about 35 persons/ha). More development in the City Centre and in existing urban areas also translates into less greenfield development (i.e., less newly developed land). As a result, municipal infrastructure costs are lower, and less pressure is placed on the city’s agricultural land.
How Do We Compare?

Figure 20 compares Richmond’s population density to that of other municipalities in the GVRD in 2001. The density comparisons exclude land in the Green Zone (i.e., major parks, lands in the Agricultural Land Reserve, and water supply catchment areas). With a population density of 22 persons/ha, Richmond falls in between the more dense Burrard Peninsula cities (Vancouver, Burnaby and New Westminster) and Northeast Sector cities (Coquitlam, Port Moody and Port Coquitlam) and the lower density outer suburban areas (Delta, Surrey and the Township of Langley).

![Fig. 20: Population Density in Selected Municipalities in the GVRD, excluding the Green Zone, 2001](source)

What is Being Done?

The City Centre is evolving in accordance with the objectives of the Official Community Plan and City Centre Area Plan, both of which promote a vibrant commercial core with high- and medium-density development suitable for a range of residents and businesses. Residential development outside the City Centre is guided by the Official Community Plan and Area Plans. These policies parallel the objectives of the GVRD’s Livable Region Strategic Plan to build complete communities and achieve a compact metropolitan region.
The City has adopted Transit Oriented Development (TOD) principles to promote transportation create compact communities which will take advantage of the Canada Line.

**Looking Forward**

Given the City’s OCP policies to promote development in the City Centre while preserving agricultural land and retaining the single-family character of neighbourhoods outside the centre, it is likely that the City Centre will continue to densify relative to other parts of the city.

The Canada Line rapid transit system will shape future development in Richmond by encouraging continued growth and densification in the City Centre and around the transit stations. Developing these areas will result in higher densities.

**What Can Citizens Do?**

- Attend public meetings on planning initiatives including applications for rezoning, subdivisions and land development activities.
- View the area plan for where you live by visiting City Hall or by visiting the City’s website (www.richmond.ca) and provide comments to the City’s Urban Development Division.
BCC-2: Residential Housing Mix

Why is this Indicator Important?

Housing choice is an important element of complete communities. Neighbourhoods that demonstrate a mix of housing types (i.e., ranging from single-family homes to apartment complexes) are often more stable and attract longer-term residents as people can move to different types of accommodation throughout their lifecycle. While some parts of the city are better suited to higher density living due to shortage of space and the high cost of land, other areas are amenable to lower density housing choices such as single-family homes. Maintaining a mix of housing choices serves all members of the community while adding diversity to the urban landscape – both architecturally and socially.

An increasing share of multi-unit dwellings is positive from an environmental perspective. It means land is being used more efficiently and energy, material and water consumption tend to be less on a per capita basis due to shared walls and floors as well as less yard space.

What is Being Measured?

This indicator breaks down the percentage of total and new housing units in Richmond by dwelling type.

What is Happening?

Richmond’s housing stock is steadily diversifying. While much of the city remains single-family in character, fewer and fewer single-family homes are being constructed. From 1990 to 2005, the share of the city’s total dwelling stock that was single-family declined from 57% to 46% according to the City’s dwelling unit estimates. In that same time span, the townhouse share rose from 18% to 22% and the apartment share increased from 23% to 31%.

These trends are caused by increasing prices for land in the Lower Mainland as well as the limited space for expansion due to the Agricultural Land Reserve and protected areas in Richmond.

How Do We Compare?

The percentage of single-family homes in Richmond (46% in 2005 and 47% in 2001 from the Census of Canada) is significantly lower than the national average (57%), but slightly higher than the GVRD average (43%). Within the GVRD, Richmond has a higher share of single-family homes than Vancouver (28%) and Burnaby (36%), but less than Coquitlam (51%), Surrey (55%), and Langley Township (71%).

Looking at recent housing completions, Richmond has a lower share of single-family completions than the region as a whole. Between 1997 and 2004, only 26.4% of the city’s completions were single-family, compared with 34.4% for the GVRD.

Summary

Status:
Richmond’s 2005 housing mix was 46% single-family dwellings, 2% two-family, 22% townhouses, and 31% apartments, representing a diversity of housing types.

Trend:
The share of townhouses and apartments in the city has been increasing steadily, while the single-family housing share is falling. Between 1990 and 2005, the single-family housing share of the city’s total dwelling stock declined from 57% to 46%.

Outlook:
The share of multi-unit homes will continue to increase in the city due to land development constraints and policies supportive of increased development in the City Centre.
What is Being Done?

Richmond’s Official Community Plan includes objectives to concentrate growth in the City Centre, which supports a move towards higher density forms of housing, such as apartments and townhouses.

Richmond’s OCP also encourages a variety of housing types, universally designed dwelling units, and a diversity of housing of different tenures and price ranges suitable to meet the needs of a wide range of individuals and families in the community.

In working towards its objectives to create a strong City Centre and provide more housing choices in specific areas of the city, the City has developed or is in the process of updating plans for each of its 14 planning areas. In addition to the OCP and Area Plans, zoning by-laws and development permitting are the primary tools the City uses to control the type of housing that is developed.

In 2006, the City will be updating its affordable housing strategy.

Fig. 21: Share of Housing as Single-family Dwellings for Selected Urban Areas, 2001 and 2005
Looking Forward
Developing the City Centre at a higher density combined with the development constraints in other parts of the city will continue to result in a higher share of multi-unit development. In addition, development around the Canada Line rapid transit stations will also support the continued trend towards the majority of housing being townhouse or apartment units.

What Can Citizens Do?
• Attend public meetings on planning issues such as zoning applications or land development activities.
• Consider moving into a townhouse or condominium if your living situation has changed (e.g., fewer people living in your household) and you no longer need all the space provided by a single-family home.
• View the Area Plan for where you live and participate in planning processes when the plan for your area is being updated.
• Consider buying or building a smaller house rather than one that is too large.
BCC-3: Access to Parks, Shopping and Amenities

Success Story

Steveston is an example of a neighbourhood outside the City Centre in Richmond that epitomizes a complete community. Steveston contains shopping, services, local jobs, significant park space, and a community centre all within close proximity of dwellings. Its success attracts visitors from Richmond and around the region.

Why is this Indicator Important?

Complete communities provide convenient access to shopping, work, schools, and recreation, allowing residents to meet many of their daily needs closer to home. Residents who live within walking distance of everyday destinations are much less car-dependent. This in turn results in less fuel consumption and fewer greenhouse gases and air emissions being generated by vehicles.

What is Being Measured?

This indicator measures the proximity of residential units to three commonly used amenities: shopping, parks or schoolyards, and recreational centres. A 400 m distance threshold (as the “crow flies”) is used for proximity to shopping and schools or parks, which roughly corresponds to a 10-minute walk.

For proximity to community centres, 1 km and 2 km distance thresholds are used.

This indicator also measures the percentage of the city’s residential dwellings located within Richmond’s City Centre, which has the highest diversity of shopping, services, and amenities in the city and is the location of a large share of the city’s jobs.

What is Happening?

The vast majority of Richmond residents have convenient neighbourhood access to parks or schoolyards, shopping, and community facilities. In 2005, over 92% of dwelling units were located within 400 m of a park or schoolyard, and 91% were within 400 m of shopping or convenience stores. Almost one-half (46%) of all dwellings were located within 1 km of a community centre, and over 93% were within 2 km in 2005.

Approximately 28% of all the dwellings in the city were located within the City Centre in 2005, up from about 21% in 1990 according to the City’s dwelling unit estimates.

Summary

Status:

In 2005, over 90% of Richmond residents lived within 400 m of basic shopping and schools or parks and over 90% lived within 2 km of a community centre. However, access to the amenities can be hampered by road design and layout.

Trend:

Data for the City Centre, which has the widest array of shops, services, amenities, and jobs, indicates an improving trend with the percentage of the city’s dwelling stock located in the City Centre increasing from 21% in 1990 to 28% in 2005. In addition, housing density increases discussed in BCC-1 (population and housing unit density) suggest that the trend to increased access is in fact occurring.

Outlook:

Continued growth in the City Centre suggests that this indicator will improve in the coming years.
Comparison with other communities is difficult due to lack of data and differences in how these numbers are calculated.

**What is Being Done?**

The OCP contains policies to locate a range of community services and facilities close to neighbourhoods. The City is also encouraging higher-density, mixed-use developments in the City Centre. As a result, neighbourhood accessibility to transit, services, and amenities should continue to improve.

The City also has policies to provide parks within each neighbourhood and has established park standards.

Street design plays an important role in accessibility. Busy arterial streets are often difficult for pedestrians to cross, and cul-de-sacs can significantly increase the length of a journey. In 2005, the City initiated the No. 3 Road Corridor Streetscape Study, which is a detailed design analysis of No. 3 Road that will address issues such as integration of the elevated Canada Line guideway and the development of strategies to make the area more

![Fig. 22: Proximity of Dwelling Units to Selected Urban Features in Richmond, 2005](image-url)
pedestrian-friendly. Concepts being considered include transforming No. 3 Road into a “Great Street” and encouraging Transit-Oriented Development (TOD) around the transit stations whereby a range of housing types, jobs, shops, services, and amenities are located within a 5 to 10 minute walk from a transit station.

Looking Forward
Rising energy prices and an aging population may result in more citizens locating in pedestrian- and transit-friendly neighbourhoods that offer services closer to home. The Canada Line and continued attraction of development in the City Centre should result in improved performance on this indicator going forward.

What Can Citizens Do?
- Choose to live in communities that offer a variety of services and amenities close to home, pedestrian-friendly design and good access to transit so that personal auto use can be reduced.
- Support neighbourhood businesses by shopping locally.
BCC-4: Labour Force Living and Working within Richmond

Why is this Indicator Important?
The concept of housing and jobs balance is a central theme in building complete communities. The degree to which workers live in proximity to their jobs directly influences the length of trips, transportation mode choice, and transportation demand patterns. These in turn impact fuel consumption for transportation and associated emissions.

What is Being Measured?
This indicator measures the percentage of the employed labour force that both live and work within Richmond.

What is Happening?
In 2001, 54% of Richmond’s employed labour force of 79,510 worked within the city. This is a slight increase from 1991 when 53% of the city’s employed labour force worked within Richmond.

Richmond has the highest number of jobs relative to the resident labour force in the suburban communities in the region. The city’s close proximity to the international airport, major ports, industrial areas, the City of Vancouver, and the U.S. border has helped attract jobs. From 1991 to 2001, the rate of job growth has increased at almost 2.5 times the growth rate in the resident labour force in Richmond meaning that more people are commuting into Richmond to work. The percentage of jobs in Richmond being held by residents has fallen from 41% in 1991 to 37% in 2001. High housing costs in Richmond may have contributed to this trend.

The proportion of the employed labour force working from home has increased from 6.6% in 1991 to 8.1% in 2001, equal to the level across the GVRD. These trends likely reflect changes in technology, which have made it possible for a larger portion of the labour force to work from home.

How Do We Compare?
Of all the suburban areas in the GVRD, Richmond has by far the highest percentage of people living and working within their home subregion – all the other subregions are well below 50%. Only the Vancouver / University Endowment Lands has a higher proportion of people working and living in the same subregion at 66%. The high performance on this indicator reflects the presence of the Vancouver International Airport and a successful City Centre with approximately 26,615 jobs in 2001.

Summary
Status:
Richmond had 54% of its resident labour force working within Richmond in 2001 – a very high proportion relative to other Lower Mainland municipalities. The high performance on this indicator supports both shorter trips for commuting and greater use of walking, cycling and transit.

Trend:
The proportion of Richmond’s employed labour force working within the city increased slightly from 53% in 1991 to 54% in 2001.

Outlook:
The outlook is positive due to the surplus of jobs in Richmond relative to the size of the resident employed labour force.

Did You Know...
Richmond has a higher ratio of jobs to workers than most other municipalities in the Lower Mainland. For every worker who lives in Richmond, there were 1.46 local jobs in 2001. Source: Statistics Canada.
What is Being Done?
The GVRD’s Livable Region Strategic Plan identifies the City Centre in Richmond as a Regional Town Centre and the City has reinforced this status in its OCP land use designations and policies that concentrate job growth there.

Richmond’s OCP also identifies that Richmond should strive to offer entry-level home ownership options and rental housing choices. The OCP contains policies such as fostering housing choice in the City Centre as well as in neighbourhoods outside the City Centre. In addition, the OCP contains policies to encourage market rental housing choices, non-market rental housing choices, and support for co-op housing choices. These policies will allow people of a wider range of incomes to live in Richmond and be closer to jobs of a range of salaries.

Looking Forward
We expect that there will continue to be a high percentage of people living and working within Richmond. In addition, high energy prices, particularly for gasoline, may increase the cost for commuting and result in some workers looking for new jobs closer to where they live.

What Can Citizens Do?
- Live closer to where you work to minimize your commuting distance and travel time to work.
- Work from home for one or more days per week if your employer allows that flexibility.
BCC-5: Commuter Trip Distance

Why is this Indicator Important?
Commuter trip distance is related to the choice of transportation mode. Shorter trips tend to be well served by walking and cycling, and to some degree by public transit. These modes are more energy efficient than the private automobile, which results in less fuel consumption, and hence fewer air and greenhouse gas emissions.

What is Being Measured?
This indicator measures the median daily commuter distance traveled in kilometres of the employed labour force in Richmond that does not work at home. Commuting distance is calculated as the straight-line distance between the resident’s home and his or her usual workplace location based on estimates by Statistics Canada.

What is Happening?
The median commuter trip distance for Richmond’s employed labour force fell from 7.5 km in 1996 to 6.7 km in 2001. More residents work within 5 km of home – 38% in 2001 versus 35% in 1996. Commute distances are even shorter for people working in the City Centre, where almost one-half of all commutes were less than 5 km in 2001 according to Statistics Canada.

The labour force that works in business parks travels significantly further than the municipal average. Those working in the Crestwood area (along No. 6 Road and Viking Way), for example, commute an average of 10.1 km, 87% further than people who work in the City Centre. In addition, transit and non-motorized access to business parks can be poor, resulting in more employees driving.

Relatively short commute trip distances in Richmond may be attributed to several factors. As noted in BCC-4 (labour force living and working within Richmond), Richmond has experienced an increase in the number of jobs relative to the number of residents and residential growth has been concentrated in the City Centre, which increases proximity to jobs located in the City Centre and the Vancouver International Airport. In addition, the proportion of Richmond’s employed labour force working from home has increased from 6.6% in 1991 to 8.1% in 2001. As there is no commute involved, this reduces energy consumption and emissions associated with transportation.

Summary
Status:
Richmond residents have shorter commuting trips than most residents in the region, reflecting the high proportion of people living and working in Richmond.

Trend:
Median commuter trip distances decreased from 7.5 km in 1996 to 6.7 km in 2001.

Outlook:
The policy to concentrate development in the City Centre should continue the trend to shorter commuter trip distances. However, a continued increase in Richmond’s labour force working in business parks may halt or reverse this trend.

Did you know...
Approximately 27% of Richmond’s labour force worked in Vancouver in 2001, followed by Burnaby (6%), Delta (3%) and Surrey (2%).
Source: Statistics Canada.
How Do We Compare?

The median Richmond commute trip distance of 6.7 km is shorter than both regional and national averages (7.6 and 7.2 km respectively). Within the GVRD, Richmond residents commute further than Vancouver citizens (5 km), but less than residents in Burnaby (8.1 km), Surrey (11.5 km), Coquitlam (11.7 km), and Delta (13.3 km). The significantly longer commute trips in municipalities south of the Fraser River likely result from several factors. A low job-to-resident ratio, such as in Delta, results in more residents traveling outside their municipality for work. Secondly, new employment opportunities have disproportionately gone into dispersed office parks in suburban areas rather than into Regional Town Centres. The result is longer commuter trip distances and increased reliance on the automobile.

![Image: Median Commuting Distance for Selected Municipalities, 2001]

Source: Statistic Canada

**Fig. 24: Median Commuting Distance for Selected Municipalities, 2001**

What is Being Done?

The OCP focuses residential and employment growth in the City Centre, which should have the effect of reducing median commuter trip distances. However, business parks are allowed in many industrial areas of Richmond, which tend to be located separately from housing and thus may increase the median commuter trip distance.
Looking Forward

It is anticipated that the median commuter trip distance will remain stable. Technological innovations may result in greater opportunities to work from home, which results in no travel (although this is not measured by the indicator); on the other hand, an increase in short-term contracts and multi-income households could make it more difficult for residents to choose a work location close to home.

If Richmond continues to attract housing and jobs to its City Centre and along the Canada Line, a higher percentage of new jobs and residences should be in closer proximity to each other, which would also contribute to reducing or stabilizing the median commuter trip distance at current levels.

These trends may be offset by regional factors, particularly the trend towards suburban office parks. In 2003, Royal LePage forecast that office space in business parks will more than double by 2012 (growth of 112% versus only 36% for Regional Town Centres), which may have the impact of increasing median commuting distances.

What Can Citizens Do?

- Work from home one or more days per week if your employer allows that flexibility.
- Live closer to your location of work to minimize your commuting time and enable a greater range of transportation choice.