BIG MOVE 1

LOW-CARBON DEVELOPMENT

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How and where new development occurs is one of the most important determining factors that influence a community's carbon emissions. Low-density residential development located far from a city's core results in higher emissions due to greater car use and environmental impacts from land clearing, habitat fragmentation, and creating impervious surfaces.

When people live close to their daily needs—jobs, schools, healthcare, food, leisure, etc.—they don't need to drive as much, and enabling transit use, cycling, and walking leads to residents' saving on transportation costs and improved health, livability, and community connectedness.

Building upon the recent increase in multi-family housing in Kamloops, low-carbon development strategies focus on prioritizing increased housing density located near amenities, services, and jobs, with access to sustainable transportation options. This Big Move addresses emissions from buildings and transportation in several ways, including promoting mixed-use development within existing neighbourhoods to provide more daily needs close to home, increasing housing types and availability through residential suites and infill, and ensuring that any new peripheral developments meet higher standards of building efficiency and support the use of electric vehicles (EVs). Encouraging growth in existing serviced areas instead of undeveloped lands on the city's periphery, while respecting the Aberdeen Growth Management Boundary, reduces the cost of building and maintaining new infrastructure. Shifting to more efficient and compact land use also preserves more land for agriculture, recreation, and ecological conservation, which enhances carbon sequestration and climate change adaptation.

CO-BENEFITS

- Enhanced Livability
- Improved Air Quality
- Ecosystem Preservation

TARGET

By 2050, 90% of residents can access their daily needs and efficient transit within a 10-minute walk or roll.

1A - Ten-Minute City

GOAL:

To support the integration of daily needs amenities in existing neighbourhood centres and, wherever possible, to concentrate housing near existing and proposed transit, cycling, and walking networks.

ECONOMIC CONSIDERATIONS:

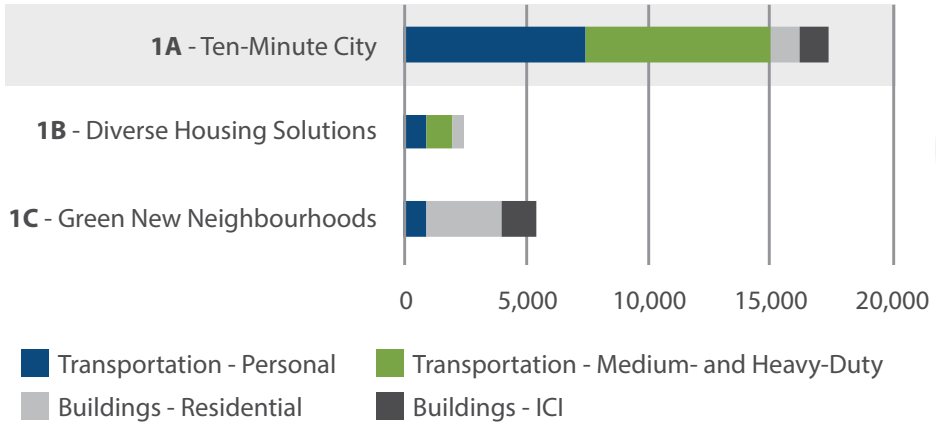
- Providing incentives for infill development is more equitable and reflective of service provision and infrastructure costs.[i] A shift from peripheral single-family development to higher-density urban housing results in relative reductions in City infrastructure and service costs.[ii] For instance, if multi-family units were to account for 40% of new construction (3,890 units) by 2050, this would result in City infrastructure and service cost savings of $8.7 million per year.[iii]
- Households in higher-density areas spend, on average, 25% less on transportation due to better access to transit and active transportation infrastructure. This represents a savings of $3,600 per year in Kamloops, which increases disposable income and consumer spending.[iv]
- Increasing access to daily needs has the potential to reduce inequities in the community by improving walkability for all.
- Housing affordability provisions will be necessary to mitigate the impacts of gentrification on lower-income households.

ACTIONS:

- ❑ Identify priority areas to support infill projects that further increase housing density, mixed uses, and access to transit and active transportation infrastructure in existing neighbourhood centres.
- ❑ Increase incentives to promote infill development (e.g. revitalization tax exemptions and reduced development cost charges [DCCs]).
- ❑ Increase availability of affordable market housing options that also contribute to higher density (e.g. density bonus for rental-only multi-family buildings).

PROJECTED ANNUAL GHG REDUCTIONS BY 2050:

This level of emissions reductions relies on 90% of new development being infill.



17,400 tCO_2e (High)

1B - Diverse Housing Solutions

GOAL:

To support additional housing opportunities on residential lots.

ECONOMIC CONSIDERATIONS:

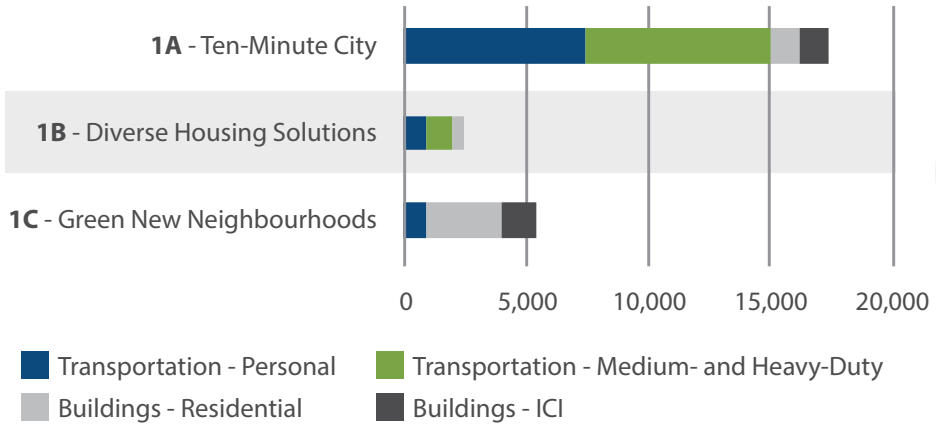
- Residential suites can provide a source of income for homeowners and add value to homes while increasing the availability of rental housing.
- Small-lot residential infill can provide more affordable housing options within existing neighbourhoods.
- Encouraging developers to build legal residential suites at the time of construction will increase costs incrementally, as many new single-family developments are already including basic servicing needed for suites (e.g. plumbing and a wet bar).

ACTIONS:

- ❑ Promote the development of legal residential suites when new homes are being constructed in areas where suites are permitted.
- ❑ Promote ground-oriented housing such as townhouses, row houses, multi-plexes, and small lot residential infill.
- ❑ Review secondary suite policy and consider guidelines for permitting a secondary suite and an accessory dwelling unit (e.g. carriage suite or garden suite) on a single-family lot in designated areas.

PROJECTED ANNUAL GHG REDUCTIONS BY 2050:

This level of emissions reductions would be expected if 3,000 suites are built (i.e. 25% of new units being suites).



2,500 tCO_2e
(Moderate)

1C - Green New Neighbourhoods

GOAL:

To require that all new buildings and neighbourhoods in suburban and rural greenfields meet higher sustainable development standards.

ECONOMIC CONSIDERATIONS:

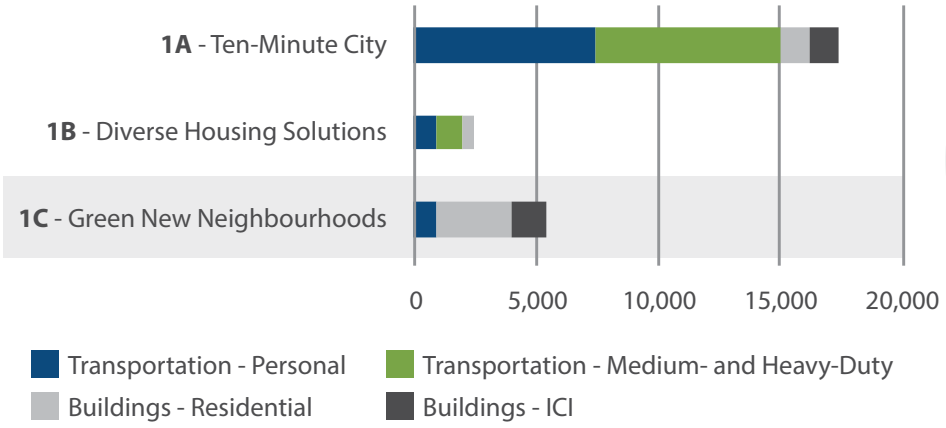
- Reducing GHG emissions intensity of construction could result in construction cost premiums of between 2.85% and 3.24%.[v] For example, according to the NRCan LEEP Costing Tool for Kamloops, purchasing a central air source heat pump instead of a gas furnace results in an incremental cost of approximately $4,000–$7,000 per unit without incentives.
- There will be some incremental costs to installing electric vehicle (EV) charging infrastructure at the time of development, but this is more affordable than retrofitting EV stations at a later time.
- Higher DCCs will increase the recuperation of higher capital costs associated with new peripheral developments such as new booster pumping stations.
- Limiting natural gas servicing will avoid costs of adding gas lines and ensure that only electric space and water heating systems and appliances are installed at time of development.

ACTIONS:

- ❑ Require developers to meet a higher BC Energy Step Code step than regulated and/or meet a specified GHG intensity.
- ❑ Require developers to install one charging station (capable of Level 2 charging) for every two stalls of off-street parking in single-family developments, in addition to any city-wide EV-ready policy.
- ❑ Increase DCCs for developments in peripheral areas (suburban and rural) to address the costs of required service upgrades or extensions.
- ❑ Explore regulatory options to limit new natural gas servicing in favour of all-electric power and/or on-site renewable energy.

PROJECTED ANNUAL GHG REDUCTIONS BY 2050:

This level of emissions reductions would require avoiding natural gas servicing to new developments, ensuring that electricity or renewable energy is used.

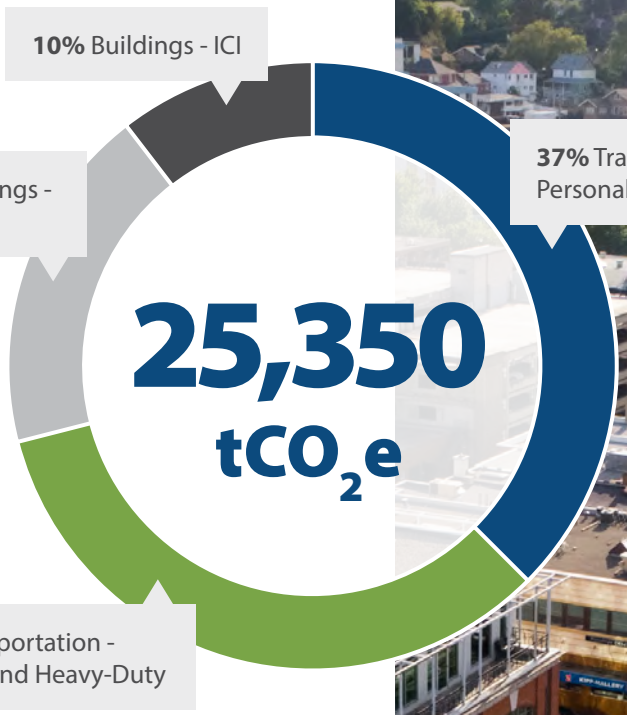


5,450 tCO_2e (High)

TOTAL BIG MOVE 1

PROJECTED ANNUAL EMISSIONS REDUCTIONS

(tCO_2e) BY 2050, BY SECTOR



Low-carbon development strategies will reduce emissions across a variety of sectors through enabling future development to be more compact and connected to local amenities by active transportation infrastructure and transit. Buildings emissions will be reduced through increasing density, with multi-family buildings, duplexes, and residential suites having lower energy demands per unit than single-family homes. Some infill development will replace older, inefficient buildings with new buildings built to higher energy efficiency standards. Requiring new developments in suburban and rural greenfields to meet higher standards of building efficiency and support the use of EVs will reduce emissions from buildings and transportation, and help mitigate the impacts of being located further from jobs and services.

[i] "Managing Urban Sprawl: Reconsidering Development Cost Charges in Canada," Smart Prosperity Institute, January 2012, https://institute.smartprosperity.ca/sites/default/files/managing-urban-sprawl.pdf.

[ii] "Settlement Pattern and Form with Service Cost Analysis," Halifax Regional Municipality, April 2005, https://usa.streetsblog.org/wp-content/uploads/sites/5/2015/03/Halifax-data.pdf.

[iii] "CCAP Economic Analysis Summary," City of Kamloops.

[iv] Ibid.

[v] Ibid.