

FINAL REPORT

PREPARED BY HEMSON & ERPIE ADVISORY INC. FOR THE CITY OF VANCOUVER

**CITY-WIDE AND UTILITIES
DEVELOPMENT COST LEVY UPDATE
BACKGROUND STUDY**

June 3, 2022



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EXECUTIVE SUMMARY

The City of Vancouver has been experiencing consistent growth and development over recent years, which places pressure on the City’s infrastructure. Development Cost Levies (DCLs) are a primary tool used by the City to fund the growth-related capital projects that are needed to service development. The City, with Hemson and Erpie Advisory Inc., has completed a comprehensive review and update of its City-wide and Utilities DCLs. This Background Study sets out the information and analysis upon which the proposed development cost levies are based.

The resulting calculated rates are shown below. Overall, the calculated residential DCLs are approximately 25% higher than the current rates in force. The calculated non-residential DCLs are approximately 38% higher than the current rates in force.

Development Type	Curent DCL	Calculated DCL	Difference in Charge	
	Rates ¹ Charge / Sq.Ft.	Rates Charge / Sq.Ft.		
Residential Development				
Low Density <i>Below 1.2 FSR & Laneway</i>	\$6.56	\$8.23	\$1.67	25%
Medium Density <i>Development between 1.2 & 1.5 FSR</i>	\$14.17	\$17.72	\$3.55	25%
High Density <i>Development Above 1.5 FSR</i>	\$28.37	\$35.46	\$7.09	25%
Non-Residential Development				
Industrial	\$8.28	\$11.45	\$3.17	38%
Mixed Employment	\$15.55	\$21.46	\$5.91	38%
Commercial & Other	\$20.71	\$28.63	\$7.92	38%

1) Rates effective September 30, 2021

Staff are recommending a phase-in of the DCL rate increase with 50% of the increase to take effect on September 30, 2022, and the remaining 50% of the increase to come into force on September 30, 2023. Additionally, in-stream rate protection will continue to be offered for applications submitted prior to the rate change.

1. INTRODUCTION

The City of Vancouver has been experiencing consistent growth and development over recent years, which places pressure on the City's infrastructure. Development Cost Levies (DCLs) are a primary tool used by the City to fund the growth-related capital projects that are needed to service development. The City has completed a comprehensive review and update of its City-wide and Utilities DCLs.

In the context of DCLs or similar municipal fees, the reference to growth relates to any development that occurs within a municipality that has the effect of increasing the population and/or employment base, thus increasing demand placed on municipal infrastructure and servicing. Growth, or new development, should be responsible for paying its share of capital costs required to service the infrastructure and servicing investments required to service the development as the City grows overall.

This background study presents the results of the review to determine the required servicing works and associated capital costs attributable to new development that is forecast to occur in the City of Vancouver between 2023 and 2032. These development-related capital costs are recovered against residential and non-residential development on a uniform City-wide basis.

The study sets out the information and analysis upon which the proposed development cost levies are based.

Section 2 provides context with a discussion of the purpose of the review, an overview of the current DCL rate structure in Vancouver, and some information on the legislative and regulatory climate governing the process.

Section 3 outlines the study process that was undertaken in order to calculate new DCL rates and the resulting by-law to be brought forward to Council. The overall project timeline, key milestones, and consultation schedule is discussed.

Section 4 presents a summary of the forecast of residential and non-residential development expected to occur across the City over a ten-year planning period, from 2023 to 2032. Additional detail is included in Appendix A.

Section 5 provides a discussion of financing growth concepts in Vancouver, including a summary of the calculation of applicable development cost levies and the resulting calculated charges by class and type of development based on the allocation of costs.

Sections 6 to 10 provide more detail for each eligible service category, including standards of municipal service delivery, the development-related capital projects, cost allocations and the resulting DCL rates calculated for each service. Further detail on the capital programs and cost allocations is included in the appendices.

Finally, **Section 11** discusses the recommended administration and implementation practices for the new DCL by-law, including exemptions, collection practices, and regular reporting.

2. BACKGROUND

Development and redevelopment of land drives the need for increased infrastructure and municipal servicing. The type of capital investment required is driven by many critical factors, including the amount, type and location of development. These factors influence the nature and quantum of capital investment required. In addition, there are influential factors that include: municipal standards and desired levels of service; the regulatory requirements and infrastructure of senior governments; topography; timing of development; available capacity already in place to service new development or redevelopment; demographic and socio-economic change; and the way in which municipalities plan for growth and the provision of services.

Once the capital investments required to service development have been identified, a municipality is also responsible for determining how facilities and infrastructure will be provided and/or funded. The question of who should pay for growth is a critical issue for many fast growing jurisdictions across North America.

The imposition of fees on development to pay for the increased cost of municipal servicing is intended to maintain a city's livability while accommodating growth and protecting the existing population's municipal service provision levels. DCLs are one of the City of Vancouver's primary tools for financing growth, and are fees paid by new development in Vancouver; these fees are used to help finance the initial capital costs of new, expanded and upgraded facilities needed to support growth. It is noted that the City has additional tools available to fund growth-related infrastructure including, but not limited to, partner funding (including grants from upper levels of government), development conditions, Community Amenity Charges (CACs), and density bonusing; the availability of these other funding sources has been considered and accounted for in determining new DCL rates.

Development cost levies in Vancouver are intended to meet the following criteria:

- Help maintain livability of the City;
- Based directly on growth-related capital costs of new development;
- Not have a negative economic impact or deter desired types of development;
- Not harm housing affordability;
- Be consistent with City policies;
- Distribute costs fairly among types of development and between DCLs, property taxes, and other funding tools;
- Provide certainty and stability, be understandable, simple and transparent; and
- Be developed with informed input from all parties.

A. BACKGROUND AND PURPOSE OF THIS REVIEW

The *Vancouver Charter* allows the City of Vancouver to recover growth-related capital costs from new development related to a limited number of services. In compliance with this legislation, this 2022 DCL Background Study is provided as a step in a process that leads to the approval of updated City-wide DCL & Utilities DCL bylaws for the City of Vancouver.

DCLs in Vancouver are one of the City's primary fiscal tools used to fund development-related infrastructure and the expansion of municipal servicing. The calculation and administration of DCLs is intended to advance the financial and policy planning priorities of Council, consistent with the Charter limitations, focused in the following areas:

- Parks (Parkland acquisition and improvements)
- Replacement Housing
- Childcare
- Transportation
- Utilities

The last comprehensive review of the City of Vancouver's City-wide DCL rate was undertaken in 2017, the purpose of which was to re-examine the way in which the City expected to grow, and the capital works required to service that new development. A Utilities DCL study was subsequently undertaken in 2018, which led to adoption of the City's Utilities DCL by-law. The 2022 review is an update to both the 2017 City-wide and 2018 Utilities DCL work, reflecting the current four-year cycle for DCL updates aligned with the City's capital planning process to ensure reflection of infrastructure priorities.

B. DCL RATE STRUCTURE IN VANCOUVER

DCLs, as established by the City's DCL by-laws, are typically paid by developers upon building permit and the funds are used to undertake development-related projects. The City currently maintains three DCL by-laws pertaining to different types of charges as follows:

- The **City-wide DCL By-law** establishes DCLs that apply to development in most areas of the city. These DCLs recover for City-wide capital costs related to parkland, replacement housing, childcare, and highway facilities (roads and related infrastructure), as well as water, sewer, and drainage infrastructure costs.

- The **Utilities DCL By-law** was established in 2018 and imposes charges for the recovery of a comprehensive water, sewer, and drainage capital program. These DCLs are also applicable to most areas of the city.
- The **Area-specific DCL By-law** applies only to certain areas of the city, including False Creek Flats and the Southeast False Creek districts. Area-specific DCLs are “layered” on top of the City-wide and Utilities DCLs in these locations. These DCLs recover for a variety of area-specific capital costs, including parkland, replacement housing, childcare, highway facilities, and utilities. These areas were originally set up as “layers” because they were transition areas or former low density industrial lands converting to more intensive mixed use areas, and they lacked significant infrastructure (e.g. roads, utilities, parks) and thus required additional DCL funding to realize these needs. As part of any DCL update, the City reviews these layered DCL areas and determines whether it is time to fold these areas into the City-wide DCL/UDCL.
- Finally, **Exempt DCL Areas** applying to False Creek North and Central Waterfront are not subject to DCLs as there are other mechanisms to deliver required public benefits.

Prior to the 2017 City-wide DCL update, the City had not undertaken a comprehensive DCL study since 2003. The 2017 study led to several key changes to Vancouver’s overall DCL framework, including the introduction of some level of water, sewer, and drainage charges. This was further expanded upon with the introduction of the 2018 Utilities DCL by-law. The City now aims to undertake comprehensive City-wide and Utilities DCL reviews every four years, in alignment with updates to the 10-year Capital Strategic Outlook.

DCL rates are determined based on a number of factors including development forecasts, growth-related amenity requirements and cost estimates. Generally, DCLs are not expected to cover all costs required by development, and the City is required to fund a share. Those shares not recovered through DCLs come from the Municipal Assist Factor (MAF), shares of development-related projects that benefit the existing community, as well as any alternative funding sources available for a particular project. These shares will be funded from other tools available to the municipality, including CACs and in-kind developer contributions, conditions of development, property tax and utility fees, or contributions from senior governments or other funding partners.

DCLs in Vancouver are levied based on the Gross Floor Area (GFA) of a development. Rates vary by type of development – residential (at or below 1.2 FSR/laneway house or

above 1.2 FSR), commercial, and industrial, and by DCL district. As outlined in s.523.D(13) of the *Vancouver Charter*, the DCL shall not exceed 10% of the value of the development, which is determined by the Building Bylaw. Payment is due at building permit issuance and the levy is calculated at the rate in effect on the date of issuance, unless in-stream rate protection applies.

Certain types of development are exempt from payment of DCLs through the provisions of the *Vancouver Charter*. The City maintains a number of additional DCL waivers or reductions. The cost to the City of these waivers or reductions must be funded through non-DCL sources (e.g. property taxes, utility rates). Further detail regarding exemptions, waivers, and reductions is provided in Section 11.

C. LEGISLATIVE AND REGULATORY BACKGROUND

The City of Vancouver is permitted to calculate and charge DCLs to new development to pay for the capital costs required to service growth. A series of governing legislation at the local and provincial level enables this practice with a guide to ensure clarity for application of rules.

i. Local Government Act

Division 19 of British Columbia's *Local Government Act* (LGA) provides the primary legal framework for the recovery of development-related costs. In particular, section 559 of the LGA provides the legislative authority to implement a development cost charge (DCC) bylaw. With the exception of the City of Vancouver and certain resort municipalities (e.g. Whistler), all municipalities in British Columbia are governed by this provincial legislation. Vancouver is governed by its own legislation, the *Vancouver Charter*.

ii. Vancouver Charter

The City of Vancouver is regulated by the provincial *Vancouver Charter*, which contains various rules that govern how the City operates. The Charter sets out Vancouver's authority with respect to property taxation, local improvements, planning and development approvals and development conditioning, as well as the use of DCLs which was introduced in 1990.

Section 523D gives Council the authority to use DCLs to help fund eligible public infrastructure and amenities needed for growth in the City. DCLs are payable on most new development, including development through the rezoning of lands. The Charter sets out eligible projects and services for Vancouver, which include:

- Sewage, water, drainage and highway facilities;
- Park land acquisitions and improvements;
- Leased or owned day care facilities and associated property acquisitions; and
- Replacement housing.

The authority to levy DCLs for affordable housing and childcare is unique to Vancouver within BC. The City is responsible for determining growth-related need and costs for each of these services and whether or not to use DCL revenues for their funding. The Charter further sets out statutory exemptions, as well as rules regarding the waivers or reductions of DCLs.

iii. DCC Best Practices Guide for British Columbia

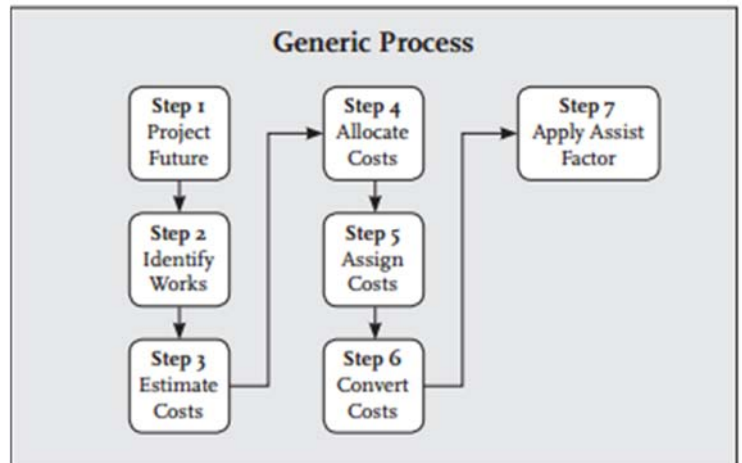
Since the introduction of development cost charges (DCCs), the British Columbia Provincial government has published several guides with suggested approaches to implementing development cost charges. For instance, the *DCC Guide for Elected Officials* and the *Development Cost Charge Best Practices Guide* are intended to provide additional insight to the use of DCCs and advise on calculation and policy planning methodology.

The *DCC Best Practices Guide* is a provincial tool and advisory report intended to standardize the formulation and administration of DCC by-laws among local municipalities in British Columbia. The guide is based on the provisions of the LGA.

While the methodology for calculating the charges may vary by municipality, generally there are seven sequential steps that are important in the DCC calculation, recommended in the *DCC Guide for Elected Officials* and as shown in Figure 1. These are summarized as follows:

1. Project future growth;
2. Identified required works;
3. Estimate infrastructure costs;
4. Allocate costs between growth and existing users;
5. Assign costs to land use types;
6. Convert costs into DCC rates; and
7. Apply assist factor.

Figure 1. Seven-Step Process in Determining DCCs



D. DCLS LEVIED IN THE CITY OF VANCOUVER

i. City of Vancouver DCL By-laws

The City of Vancouver maintains three DCL by-laws for the City-wide DCL, the Utilities DCL and the Area-specific DCLs. Figure 1 shows the current DCL rates imposed in the City of Vancouver as of September 30, 2021.

Figure 2. Current DCL Rates by Area (effective Sept. 30, 2021)

		Base ¹			Layered ²	
		City-wide DCL (A)	City-wide Utilities DCL (B)	TOTAL City-wide DCLs (A+B)	False Creek Flats	South East False Creek
Residential	Residential at or below 1.2 FSR and Laneway House	\$45.54/m ² (\$4.23/ft ²)	\$25.06/m ² (\$2.33/ft ²)	\$70.60/m ² (\$6.56/ft ²)	\$70.16/m ² (\$6.52/ft ²)	\$216.91/m ² (\$20.15/ft ²)
	Medium Density Residential above 1.2 FSR to 1.5 FSR	\$98.05/m ² (\$9.11/ft ²)	\$54.47/m ² (\$5.06/ft ²)	\$152.52/m ² (\$14.17/ft ²)		
	Higher Density Residential above 1.5 FSR	\$196.32/m ² (\$18.24/ft ²)	\$109.05/m ² (\$10.13/ft ²)	\$305.37/m ² (\$28.37/ft ²)		
Non-Residential	Commercial and Most Other Uses ³	\$165.70/m ² (\$15.39/ft ²)	\$57.30/m ² (\$5.32/ft ²)	\$223.00/m ² (\$20.71/ft ²)	\$70.16/m ² (\$6.52/ft ²)	\$34.64/m ² (\$3.22/ft ²)
	Industrial ⁴	\$66.13/m ² (\$6.14/ft ²)	\$22.99/m ² (\$2.14/ft ²)	\$89.12/m ² (\$8.28/ft ²)		
	Mixed Employment (Light Industrial) ⁵	\$124.30/m ² (\$11.55/ft ²)	\$43.03/m ² (\$4.00/ft ²)	\$167.33/m ² (\$15.55/ft ²)		
Other Rates ⁶	Artist Studio (Class A&B) Childcare Community Centre/ Neighbourhood House Library Public Authority Use Social Service Centre Temporary Buildings	\$10.00/BP ⁷	\$10.00/BP	\$20.00/BP	\$10.00/BP	\$10.00/BP
	Community Energy Centre	\$10.00/BP	\$10.00/BP	\$20.00/BP	N/A	\$10.00/BP
	Parking garage	\$1.08/m ² (\$0.10/ft ²)	\$1.08/m ² (\$0.10/ft ²)	\$2.16/m ² (\$0.20/ft ²)	\$1.08/m ² (\$0.10/ft ²)	\$1.08/m ² (\$0.10/ft ²)
	School (K-12, Public)	\$5.49/m ² (\$0.51/ft ²)	\$5.49/m ² (\$0.51/ft ²)	\$10.98/m ² (\$1.02/ft ²)	\$5.49/m ² (\$0.51/ft ²)	N/A
	Works Yard	N/A	N/A	N/A	\$1.00/m ² (\$0.09/ft ²)	N/A

For a map of the DCL Districts, please see Map 1 in Appendix A.

¹ In the Base DCL areas, the City-wide Utilities DCL applies *in addition to* the City-wide Vancouver DCL.

² In the Layered DCL areas, DCLs apply *in addition to* the City-wide DCL and City-wide Utilities DCL.

³ All uses, except for those specified here, are subject to the Commercial DCL rate.

⁴ Industrial in the City-wide Vancouver DCL and City-wide Utilities DCL apply to development in the I-2, M-1, M-1A, M-1B, M-2, MC-1, MC-2 zoning districts. See DCL By-laws for definitions.

⁵ Mixed Employment (Light Industrial) in the City-wide Vancouver DCL and City-wide Utilities DCL apply to IC-1, IC-2, IC-3, I-1, I-1A, I-1B, I-1C, I-3 and I-4 zoning districts. See DCL By-laws for definitions.

⁶ Refer to DCL By-law and Zoning & Development By-law for use definitions.

⁷ BP stands for Building Permit.

ii. Metro Vancouver DCCs

In addition to the City of Vancouver's DCLs, the City also collects a separate regional DCC on behalf of the Greater Vancouver Sewerage and Drainage District (GVS & DD) for expansion of sewerage facilities required by regional growth. The GVS & DD has two service areas in the City of Vancouver. There are different rates for each area and type of development, with the proposed 2022 rates shown here. These rates are currently with the Inspector of Municipalities for review after approval by the GVS & DD Board in July 2021:

	Vancouver Sewage Area	Fraser Sewage Area
Single Family Residential (\$/unit)	\$3,335	\$6,254
Townhouse Residential (\$/unit)	\$2,983	\$5,390
Apartment Residential (\$/unit)	\$1,988	\$4,269
Non-Residential (\$/square foot)	\$1.63	\$3.30

Metro Vancouver is in the engagement phase of establishing a new DCC for regional water infrastructure which will provide a revenue stream distinct from the current user fees which have traditionally been the sole source of funding for the Greater Vancouver Water District. The expectation is the DCC bylaw will be finalized and implemented in Fall/Winter 2022.

iii. TransLink DCCs

In 2018, TransLink introduced DCCs to recover for growth-related transit expansion costs; these DCCs are layered on top of Vancouver's DCLs and Metro Vancouver DCCs. TransLink recently passed a new by-law, bringing the following rates into effect as of January 2022:

Single Family Dwelling (\$/unit)	\$2,993
Duplex or Townhouse Dwelling Unit (\$/unit)	\$2,485
Apartment Dwelling Unit (\$/unit)	\$1,554
Retail/Service (\$/square foot)	\$1.26
Office (\$/square foot)	\$1.01
Institutional (\$/square foot)	\$0.50
Industrial (\$/square foot)	\$0.30

3. STUDY PROCESS

The City of Vancouver committed to a four-year cycle for updates to DCLs that aligns with the Capital Planning Process to ensure City priorities are reflected. The simplification and modernization of the City's DCL regime over the last several years has provided the ability for allocation of DCL funding across the City where it is needed based on capital planning. This update included validation of the financing framework, review of the growth forecast and capital plan and estimated costs that support the City's growth.

A. PROJECT TIMELINE

The study process was initiated in September 2021 and is to conclude with a by-law presented to Council in June 2022. The resulting DCL rates are anticipated to take effect in September 2022. The study process has included a number of phases, which are described below.

- **Development Forecast:** A forecast of new development over the 2023 to 2032 period was prepared by staff, in line with BC's DCC Best Practices Guide. A floor space forecast by type of residential (low, medium, and high density) and non-residential (industrial, mixed employment, and commercial/other) development was prepared. The forecast was primarily based on development pipeline data and was reviewed and validated by Hemson.
- **Capital program:** The Steering Committee and consultants worked extensively with department staff to assemble growth-related capital programs containing projects required to service development between 2023 and 2032. Projects were identified as well as their associated costs, growth-related shares, benefitting time period and alternative funding sources (e.g. senior government shares, development conditions, CACs and density bonusing). Capital programs and project details were closely aligned with the City's Capital Strategic Outlook.
- **Rate calculation:** This phase involved inputting all assumptions into a financial model and calculating development cost levies to be recommended to Council.
- **Policy considerations:** This phase included support staff on a review of DCL policies within the By-laws, including a review of the City-wide DCL waiver for for-profit affordable rental housing, reduced rates, and other administrative considerations.

- **Implementation:** This phase of the process will continue once the by-law is passed in June 2022. City staff will be tasked with maintaining and administering the by-law, and working with departmental staff to ensure that growth-related projects are funded by DCLs to the extent permitted by the legislation and as stipulated in the rate calculations in this background study. This process will continue until the by-law is updated, which should occur in 2026 based on the framework in place.

B. CONSULTATION WITH CITY STAFF

The study process was designed to engage City staff at key phases of the project. Three key working groups were engaged throughout the course of the assignment.

Steering Committee: This committee was composed of staff dedicated to financing growth policy. Staff from planning, finance, and engineering were available to provide input at all phases of the study process, attend all meetings and consultation sessions, and to assist in the calculation of DCL rates.

Technical Team: Composed of representatives from all eligible service departments, the team was consulted at key phases of the study and responsible for developing the capital programs and providing project costs.

Senior Staff and Elected Officials: The City's Capital Planning and Delivery Oversight Committee, Park Board, and Council were consulted at key stages of the process. These meetings were held to communicate the findings of the initial background research and recommendations, study results including the development forecast, capital programs, and rate calculations, and to ensure continued support for the recommended rates and policy directions.

C. STAKEHOLDER ENGAGEMENT PROCESS

Development industry, non-profit, and government agency stakeholders were consulted at two key points in the study process. In February 2022, stakeholders were updated on the study background and process, development forecast results, and policy considerations and were offered an opportunity for initial input. In May 2022, the draft capital programs, calculated DCL rates, economic testing, and recommended policy directions were presented and discussed. Discussions followed through May, and the capital programs and rate calculations were finalized in consideration of stakeholder comments.

D. ASSESSMENT OF IMPACT OF DCL RATE CHANGES

As part of the DCL review and update, the City retained Coriolis Consulting Corp. to undertake an assessment of the potential consequence or impact of DCL rate changes, including an evaluation of the financial ability of new development projects in the city to support increased DCL rates. The Coriolis analysis supported the recommended rates and may continue to be used to inform the implementation process moving forward. The Coriolis analysis is available under separate cover.

4. DEVELOPMENT FORECAST

The anticipated residential and non-residential development in the City of Vancouver between 2023 and 2032 will increase demand on all municipal services. The City utilizes DCLs as a key tool in funding development-related infrastructure that is necessary to allow development to proceed, in a fiscally responsible manner.

Development cost levy calculations are rooted in a number of assumptions about the way in which a municipality is anticipated to grow. The first step in calculating a charge is to forecast the type and location of anticipated development against which the charges will apply. The City's development forecast uses in-stream application statistics (development pipeline) from the City's permitting system and BC Assessment 2020 data is used for base building floor area figures. New development completion data is estimated based on historical City processing timeline trends. For the purposes of the DCL Update Study, this growth forecast is updated to reflect the 2023-2032 planning period and reflects current policy plans and in-stream development projects. Importantly, this development forecast is then used by City Departments that receive DCL funding to determine the location, nature and cost of infrastructure to meet the needs arising from the development forecast.

Early in the DCL Update process, Hemson undertook a review of the City's development forecast. Hemson concluded that the methodology and assumptions used were sound, and that the projection outputs represented a reasonable basis for the purpose of supporting the DCL modeling.

This section provides the basis for the development forecasts used in calculating the development charges, as well as a summary of the forecast results. A more detailed summary, including mapping of the forecasts by geographic area, is provided in Appendix A.

A. RESIDENTIAL DEVELOPMENT PROJECTIONS

Development cost levies are charged to residential development as a fee per square foot of building Gross Floor Area (GFA). The residential forecast includes a projection of new residential building space.

The building space forecasts in this development cost levy study include forecasts for both net and GFA growth. The City of Vancouver levies DCLs on new development based

on GFA. As such, the growth-related capital costs are applied to the GFA forecasts between 2023 and 2032 in order to calculate the DCL rate.

Table 1 provides a summary of the residential forecast for the ten-year planning period from 2023 to 2032. The net increase in residential floor area across the City over the planning period amounts to 41.9 million square feet. The GFA growth forecast totals 56.2 million square feet of residential space.

B. NON-RESIDENTIAL FORECAST

Development cost levies are also charged on non-residential development on a per-square-foot basis. Similar to the residential forecast, the non-residential forecast includes a projection of new non-residential floor space that will be built in the City.

The non-residential forecast projects an increase of 14.3 million square feet of net new non-residential building space. The gross non-residential GFA growth over the ten-year planning period totals 18.3 million square feet, of which 70% will be commercial floor space.

TABLE 1
CITY OF VANCOUVER
2022 DEVELOPMENT COST LEVY UPDATE
SUMMARY OF RESIDENTIAL AND NON-RESIDENTIAL
CITY-WIDE DEVELOPMENT FORECAST

City-wide Residential Growth Forecast	2023-2032 Growth
Residential Floor Area Net Growth (sq.ft.)	41,862,851
<i>Below 1.2 FSR (LWH, Duplex)</i>	3,956,316
<i>1.2-1.5 FSR (Townhouse)</i>	1,964,864
<i>FSR 1.5 and more (Apartment)</i>	35,941,670
Residential Floor Area Gross Growth (sq.ft.) (1)	56,210,460
<i>Below 1.2 FSR (LWH, Duplex)</i>	20,033,875
<i>1.2-1.5 FSR (Townhouse)</i>	2,481,155
<i>FSR 1.5 and more (Apartment)</i>	33,695,430

City-wide Non-Residential Growth Forecast	2023-2032 Growth
Non-Residential Floor Area Net Growth (sq.ft.)	14,289,765
<i>Commercial</i>	9,681,005
<i>Industrial</i>	2,348,925
<i>Mixed Employment</i>	1,412,943
<i>Reduced Rate</i>	846,892
Non-Residential Floor Area Gross Growth (sq.ft.)	18,328,677
<i>Commercial</i>	12,821,065
<i>Industrial</i>	2,898,416
<i>Mixed Employment</i>	1,762,304
<i>Reduced Rate</i>	846,892

Notes

1) Residential GFA excludes social housing as per the Vancouver Charter exemption.

C. GROSS FLOOR SPACE WEIGHTING FOR DCL RATE CALCULATION

There is a final adjustment to the gross floor space for the purpose of the DCL rate calculations. The demand for City services funded by DCLs is generally driven by population and employment increases, while the charges are levied on added gross floor area. To reflect differences in needs arising from ground-related units and higher density built form, the residential gross floor areas have been weighted for the purpose of the DCL calculations. These weighting factors are expressed in relation to the apartment units and the same factors are used to establish the differentiated residential rates by floor space ratio (FSR) category.

A similar adjustment is made to the non-residential gross floor area to reflect differences in the typical floor space per worker (FSW) by land use type, as well as differences in demand needs arising from different employment types. The weighting factors are expressed in relation to the commercial floor space and the same factors are used to establish the differentiated non-residential rates. It is noted that distinct weighting factors are applied to the non-residential classes for Utility services, reflecting different demand placed by workers on water, sanitary, and drainage infrastructure than the residential population, as compared to the other City-wide DCL services.

Table 2 provides the equivalency factors and shows the calculations of the weighted gross floor area. The total residential weighted GFA used for the DCL calculations is 39.6 million square feet. The total non-residential weighted GFA used for the calculation of the City-wide DCLs (Parks, Childcare, Housing, and Transportation) is 15.9 million square feet. The total non-residential weighted GFA used for the calculation of Utilities DCLs is 8.0 million square feet.

TABLE 2

**CITY OF VANCOUVER
2022 DEVELOPMENT COST LEVY UPDATE
SUMMARY OF RESIDENTIAL AND NON-RESIDENTIAL
WEIGHTED GROSS GFA FOR DCL CALCULATIONS**

City-wide Growth Forecast 2023-2032	Total Gross Floor Area (1) (sq.ft)	Gross Floor Weighted to Apartment/Commercial Equivalent (2)			
		City-Wide DCL		Utilities DCL	
		Equiv. Factor	GFA (sq.ft.) (3)	Equiv. Factor	GFA (sq.ft.) (3)
Residential Floor Area Gross Growth	56,210,460		39,588,200		39,588,200
Below 1.2 FSR (LWH, Duplex)	20,033,875	0.232	4,652,200	0.232	4,652,200
1.2-1.5 FSR (Townhouse)	2,481,155	0.500	1,240,600	0.500	1,240,600
FSR 1.5 and more (Apartment)	33,695,430	1.000	33,695,400	1.000	33,695,400
Non-Residential Floor Area Gross Growth	18,328,677		15,937,400		7,968,700
Commercial	12,821,065	1.000	12,821,100	0.500	6,410,500
Industrial	2,898,416	0.400	1,159,400	0.200	579,700
Mixed Employment	1,762,304	0.750	1,321,700	0.375	660,900
Reduced Rate	846,892	0.750	635,200	0.375	317,600
Total Gross Floor Area	74,539,137		55,525,600		47,556,900

Notes

- (1) Source: Table 1
- (2) See Appendix for discussion of the equalization of the gross floor area. The Equivalency Factors are also used to set the DCL rates by type of development.
- (3) Weighted GFA rounded to the nearest hundred for the purpose of the DCL rate calculations.

5. FINANCING GROWTH IN VANCOUVER

Several key steps are required when calculating any development fee. However, specific circumstances arise in each municipality that must be reflected in the calculation. Therefore, the study has been tailored specifically for the City of Vancouver. The approach to the proposed development cost levies is focused on providing a reasonable alignment of development-related costs with the development that necessitates them. The study uses a City-wide approach for all services, which is consistent with past practice, and is deemed the best approach to align development-related costs and benefits.

A. RELATIONSHIP TO OTHER MUNICIPAL DOCUMENTS

The DCL study has been undertaken as part of a larger initiative to review financing growth policies at the City and to examine the way in which capital planning predicts and responds to the evolving needs of development. The inputs, assumptions, development forecasts and capital programs were developed in consideration of the following legislation, plans and policies:

- Vancouver Charter;
- British Columbia Development Cost Charges Best Practices Guide;
- Previous DCL studies and by-laws;
- Capital planning documents; and
- Various master plans.

B. DCL TIME FRAME

The DCL study is based on meeting the needs of development over a ten-year planning period, between 2023 and 2032, in alignment with the City's capital planning framework. This planning period was determined to be a reasonable period upon which to base the capital programs for each service category, and estimate the future needs of development.

C. CITY-WIDE AND AREA-SPECIFIC DCL CHARGES

The City of Vancouver provides a wide range of services to the community it serves and has an extensive inventory of facilities, land, infrastructure, vehicles and equipment. The

Vancouver Charter provides the City with the flexibility to designate the areas to which charges for eligible services will apply, based on the nature and location of the development necessitating the works. Development Cost Levies may apply to all lands in the City or to other designated development areas as specified in a municipal by-law.

The City of Vancouver levies both area-specific and City-wide DCLs. This background study and analysis is limited to update the City-wide charges only (City-wide DCL and Utilities DCL). No adjustments to the layered or area-specific charges are suggested or recommended as part of this study process. For all of the eligible services that the City provides City-wide, the full range of capital facilities, land, equipment and infrastructure is available throughout the City.

The following services are included in the City-wide development cost levy calculation:

- Parks;
- Childcare;
- Replacement Housing
- Transportation; and
- Utility Services, including Water and Sanitary & Drainage.

These services form a reasonable basis upon which to plan and administer the City-wide development cost levies. The resulting DCL for these services is to be imposed against all development anywhere in the City.

D. DCL RECOVERABLE COSTS

A development-related capital forecast has been prepared by the City's departments as part of the present study. The forecast for each eligible service category identifies development-related projects and their gross and net costs, after allowing for capital grants, subsidies or other contributions as required by the *Vancouver Charter*. The capital forecast acts as the cornerstone upon which development cost levies are based.

For some projects in the development-related capital forecast, a portion of the project may confer benefits to existing residents and businesses in Vancouver. These portions of projects and their associated net costs are the funding responsibility of the City from non-DCL sources, such as property taxes and utility rates. The amount of City funding for such shares is also identified as part of the preparation of the capital forecast.

Table 3 provides a summary of the cost allocations for each service category. As shown, the total capital project costs for works required to service new development in

Vancouver amount to \$9.72 billion. A number of deductions have been made to remove costs not eligible for inclusion in the DCL calculation.

E. ALLOCATION OF COSTS

For each DCL eligible service category, the development-related costs of necessary infrastructure projects have been identified. The capital costs are allocated between existing and future development, and alternative funding sources are identified.

As shown on Table 3, \$3.83 billion in anticipated senior government or partner shares has been deducted from the gross project costs. A further \$610.94 million is deemed to benefit development occurring beyond the 2023-2032 planning period; this share may be considered as part of future DCL updates. Approximately \$1.53 billion in “benefit to existing” shares, related to replacement costs or other shares or projects deemed to address existing needs, has also been removed from the DCL rate funding consideration.

After these deductions, a total net growth-related amount of \$3.75 billion remains. However, \$1.87 billion of this amount is anticipated to be funded through other growth funding sources such as available DCL reserves, CACs, development conditions, and layered DCLs. Of the remaining \$1.88 billion, a 1% municipal assist share is deducted as per the requirements of the Vancouver Charter. The remaining DCL rate supported amount for the 2023-2032 period is calculated at \$1.86 billion.

TABLE 3

CITY OF VANCOUVER
 DEVELOPMENT COST LEVIES UPDATE STUDY
 SUMMARY OF OVERALL 10-YEAR CAPITAL PROGRAM 2023-2031

Service	Gross Project Costs (\$000)	Senior Gov. / Partners (\$000)	Post-Period (2033+) (\$000)	Benefit to Existing (\$000)	Net Growth-Related Costs (\$000)	Growth Costs Funded from Other City Sources ¹ (\$000)	DCL Eligible Costs 2023-2032		
							Net DCL Eligible Costs (\$000)	Less Municipal Assist ² 1% (\$000)	DCL Rate Supported 2023-2032 (\$000)
1.0 Parks	\$539,413	\$0	\$0	\$39,250	\$500,163	\$78,994	\$421,169	\$4,322	\$416,847
2.0 Childcare	\$347,738	\$63,570	\$0	\$18,900	\$265,268	\$165,944	\$99,324	\$1,273	\$98,052
3.0 Housing	\$5,220,034	\$3,383,179	\$0	\$35,688	\$1,801,167	\$1,502,490	\$298,677	\$3,207	\$295,470
4.0 Transportation	\$1,515,359	\$362,850	\$0	\$699,635	\$452,874	\$48,826	\$404,048	\$4,194	\$399,855
5.0 Utility Services									
<i>Water</i>	<i>\$38,711</i>	<i>\$0</i>	<i>\$5,932</i>	<i>\$494</i>	<i>\$32,285</i>	<i>\$19,333</i>	<i>\$12,951</i>	<i>\$135</i>	<i>\$12,816</i>
<i>Sewer</i>	<i>\$2,059,850</i>	<i>\$18,500</i>	<i>\$605,010</i>	<i>\$737,450</i>	<i>\$698,890</i>	<i>\$55,251</i>	<i>\$643,639</i>	<i>\$6,693</i>	<i>\$636,946</i>
Sub-Total Utilities	\$2,098,561	\$18,500	\$610,942	\$737,945	\$731,174	\$74,584	\$656,590	\$6,828	\$649,762
TOTAL 10 YEAR CAPITAL PROGRAM	\$9,721,104	\$3,828,099	\$610,942	\$1,531,417	\$3,750,646	\$1,870,837	\$1,879,809	\$19,823	\$1,859,985

Notes

- 1) Other Funding Sources Include: DCL Reserves, CACs, conditions of development, Empty Homes Tax, Layered DCL and other.
- 2) Municipal Assist: has been set as a % of overall program level 2023-2032 funding needs.

F. CALCULATION OF BASE DCL RATE

The growth-related capital program proposed to be funded by DCLs for each service is divided by the weighted gross floor space forecast to arrive at the base DCL charge. Since different weighting factors are applied to the growth forecast for the purposes of the Utility Services calculations, the charges are calculated on a service-specific basis.

For Parks, Childcare, Housing, and Transportation, the DCL rate supported capital costs are divided by the weighted gross floor area of 55.53 million square feet. For example, the Parks rate support amount of \$416.85 million is divided by the weighted gross floor area to arrive at a base DCL charge of \$7.51 per square foot.

For Utilities, the DCL rate supported capital costs, which total \$649.76 million, are divided by the weighted gross floor area of 47.56 million square feet. This results in a base DCL charge of \$13.66 per square foot.

Table 4 shows the base DCL Rate calculation for all services. The base charge is then multiplied by the weighting factors to arrive at the DCL charges by type of development. The calculations are shown below.

Further details by service are provided in the following sections of this report, as well as the appendices.

TABLE 4

CITY OF VANCOUVER
DEVELOPMENT COST LEVIES UPDATE STUDY
CALCULATION OF BASE DCL RATE

10 Year Increase in Weighted Gross Floor Area (sq.ft.)	
<i>City-Wide DCL</i>	55,525,600
<i>Utilities DCL</i>	47,556,900

Service	2023-2032 Net DCL Rate Supported (\$000)	Calculated Base DCL Per Square Foot
1.0 Parks	\$416,846.9	\$7.51
2.0 Childcare	\$98,051.5	\$1.77
3.0 Housing	\$295,470.1	\$5.32
4.0 Transportation	\$399,854.5	\$7.20
5.0 Utility Services		
<i>Water</i>	<i>\$12,815.9</i>	<i>\$0.27</i>
<i>Sewer</i>	<i><u>\$636,946.5</u></i>	<i><u>\$13.39</u></i>
Sub-Total Utility Services	\$649,762.4	\$13.66
TOTAL CAPITAL PROGRAM	\$1,859,985.4	\$35.46

Development Cost Levy Calculation					
	City-wide DCL		Utilities DCL		Total
Type of Development	Weighting Factor	DCL Rate (/sq.ft.)	Weighting Factor	DCL Rate (/sq.ft.)	DCL Rate (/sq.ft.)
Low Density Residential	0.232	\$5.06	0.232	\$3.17	\$8.23
Medium Density Residential	0.500	\$10.89	0.500	\$6.83	\$17.72
High Density Residential	1.000	\$21.80	1.000	\$13.66	\$35.46
Industrial (Heavy)	0.400	\$8.72	0.200	\$2.73	\$11.45
Mixed Employment (Light Industrial)	0.750	\$16.34	0.375	\$5.12	\$21.46
Commercial & Other	1.000	\$21.80	0.500	\$6.83	\$28.63

6. PARKS DEVELOPMENT COST LEVIES

A. MUNICIPAL SERVICE DELIVERY

The Parks and Recreation branch of the City of Vancouver's Parks, Recreation and Culture department is overseen by an elected Park Board. The City provides a host of outdoor parks and recreation amenity space for residents, employees and visitors to enjoy. Within the city's boundaries, there are 250 municipal parks and beaches, including the 404-hectare Stanley Park in the heart of the City as well as ten oceanside beaches, one freshwater lake beach, and 22 kilometres of Seawall.

The *Vancouver Charter* permits the inclusion of capital costs related to:

- a) Acquiring park land and or reclaiming land as park land,
- b) Providing fencing, landscaping, drainage and irrigation, trails, restrooms, changing rooms and playground and playing field equipment on park land. (523D, s.17.1)

B. PARKS GROWTH-RELATED CAPITAL PROGRAM

The 2023-2032 Parks DCL capital program is primarily based on VanPlay, the Park Board's Parks and Recreation Services Master Plan, which identifies future needs related to growth and development in the city, as well as the Capital Strategic Outlook.

The ten-year parks capital program includes projects that fall within the following categories:

- Parkland acquisition;
- Seawall and waterfront projects;
- Urban forest and natural areas;
- Park amenities (design and development); and
- Buildings and infrastructure.

The Park Board has established a \$539.41 million gross capital budget, which provides for approximately 5.3 hectares of parkland acquisition in addition to various park development projects and amenities. After deducting benefit to existing shares, CAC / density bonusing shares, layered DCL shares, available DCL reserves, and the municipal

assist factor, \$416.85 million remains to be funded through DCLs over the ten-year planning period.

An overview of the program is provided in Table 5. Further details of the capital program are listed in Appendix B.

TABLE 5
CITY OF VANCOUVER
DEVELOPMENT COST LEVIES UPDATE STUDY
10-YEAR CAPITAL PROGRAM 2023-2032: PARKS

Parks Capital Program	Park Area	Total Gross Cost	Senior Gov. / Partners	Benefit to Existing	Net Growth-Related Costs	Other City Funding Sources	Municipal Assist	DCL Rate Funded 2023-2032
	(ha)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
Parkland Acquisition ¹	5.30	\$165,280	\$0	\$0	\$165,280	\$0	\$1,653	\$163,627
Seawall & Waterfront		\$26,000	\$0	\$12,000	\$14,000	\$5,000	\$90	\$8,910
Urban Forest & Natural Areas		\$107,800	\$0	\$0	\$107,800	\$134	\$1,077	\$106,589
Park Amenities (Design & Development)		\$172,500	\$0	\$22,100	\$150,400	\$60,340	\$901	\$89,160
Buildings & Infrastructure		\$39,650	\$0	\$5,150	\$34,500	\$2,500	\$320	\$31,680
Emerging Priorities		\$28,183	\$0	\$0	\$28,183	\$0	\$282	\$27,901
Available DCL Reserves		\$0	\$0	\$0	\$0	\$11,020	\$0	-\$11,020
Total Parks		\$539,413	\$0	\$39,250	\$500,163	\$78,994	\$4,322	\$416,847

1)The Park Board has additional parkland acquisition needs, beyond the 5.3 ha, to meet the increased demands arising from development over the period 2023-2032. These additional needs will be achieved through in-kind CAC contribution from major development projects, and are not valued in this table.

C. PARKS DCL RATE CALCULATION

The DCL funded share of Parks capital program, \$416.85 million, translates to a cost of \$7.51 per square foot of new development that is to be levied on all new development in the City of Vancouver. Using the equivalency factors, the rates to be levied on each type of development for parks are calculated as follows:

Parks City-Wide DCL	
Low Density Residential	\$1.74/ sq.ft.
Medium Density Residential	\$3.75 / sq.ft.
High Density Residential	\$7.51 / sq.ft.
Industrial	\$3.00 / sq.ft.
Mixed Employment	\$5.63 / sq.ft.
Commercial & Other	\$7.51 / sq.ft.

7. CHILDCARE DEVELOPMENT COST LEVIES

A. MUNICIPAL SERVICE DELIVERY

The City of Vancouver works with the Province of British Columbia and other partners to provide childcare servicing to residents of Vancouver. The City works to:

- Partner with non-profit organizations to deliver quality, affordable, and accessible childcare;
- Facilitate the development of infrastructure to support integrated childcare services, including licensed group care and other family support services;
- Use financial tools to leverage facilities and land, and offset some operating costs; and
- Encourage senior governments to uphold their responsibility for childcare.

The *Vancouver Charter* permits the inclusion of capital costs related to:

Establishing day care facilities in premises leased or owned, and acquiring property for such facilities. (523D, s.1)

B. CHILDCARE GROWTH-RELATED CAPITAL PROGRAM

The projects included in the childcare capital program were designed to accommodate the increased demands on the service imposed by development in the City. As growth occurs, and the population and employment base grows, additional childcare spaces must be made available. The number and type of spaces included in the program are tied directly to the City's development forecast provided by planning.

The ten-year childcare capital program includes the development of childcare spaces in both independent facilities and in schools and community centres. The capital program distinguishes childcare spaces for children aged 0-4 years and 5-12 years old. Benefit to existing shares are identified, which relate to the replacement of some existing spaces through the redevelopment or relocation of certain facilities in the program.

The needs analysis identifies the provision of 1,895 new child spaces over the ten-year planning period of 2023-2032 at a gross cost of \$347.74 million. After deducting anticipated senior government or partner shares, replacement shares, other funding sources (CACs and density bonusing, layered DCLs, available DCL reserves), and the municipal assist factor, the remaining DCL rate funded amount for 2023-2032 is \$98.05 million.

An overview of the program is provided in Table 6. Further details of the capital program are listed in Appendix C.

TABLE 6
CITY OF VANCOUVER
DEVELOPMENT COST LEVIES UPDATE STUDY
10-YEAR CAPITAL PROGRAM 2023-2032: CHILDCARE

Childcare Capital Program	Net New Spaces ¹	Total Gross Cost	Senior Gov. / Partners	Benefit to Existing	Net Growth-Related Costs	Other City Funding Sources	Municipal Assist	DCL Rate Funded 2023-2032
	(#)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
Spaces for Ages 0-4								
Civic Buildings (e.g. Community Centres)	716	\$149,710	\$25,040	\$18,900	\$105,770	\$17,790	\$880	\$87,100
Developer-Led, In-Kind	450	\$94,500	\$0	\$0	\$94,500	\$90,615	\$39	\$3,846
NPO-Led, In-Kind	188	\$39,480	\$13,810	\$0	\$25,670	\$19,380	\$63	\$6,227
Conversion from Part-Day to Full-Day	180	\$1,800	\$0	\$0	\$1,800	\$0	\$18	\$1,782
Indigenous-Led, Capital Grant	74	\$15,540	\$2,960	\$0	\$12,580	\$0	\$126	\$12,454
NPO-Led, Capital Grant	147	\$25,110	\$17,760	\$0	\$7,350	\$1,800	\$56	\$5,495
Part-Day Preschool, In-Kind	40	\$8,400	\$0	\$0	\$8,400	\$8,400	\$0	\$0
Sub-Total Spaces for Ages 0-4	1,795	\$334,540	\$59,570	\$18,900	\$256,070	\$137,985	\$1,181	\$116,904
Spaces for Ages 5-12								
OOSC / Indigenous-Led	100	\$5,000	\$4,000	\$0	\$1,000	\$0	\$10	\$990
Sub-Total Spaces for Ages 5-12	100	\$5,000	\$4,000	\$0	\$1,000	\$0	\$10	\$990
Emerging Priorities		\$8,198	\$0	\$0	\$8,198	\$0	\$82	\$8,116
Available DCL Reserves		\$0	\$0	\$0	\$0	\$27,959	\$0	-\$27,959
Total Childcare	1,895	\$347,738	\$63,570	\$18,900	\$265,268	\$165,944	\$1,273	\$98,052

Notes:

1) Childcare spaces shown are fully growth-related. The City will add additional spaces to address existing needs and those spaces, and associated costs are not reflected above.

C. CHILDCARE DCL RATE CALCULATION

The \$98.05 million in DCL funded costs translates to a DCL rate of \$1.77 per square foot of new development. Using the equivalency factors, the rates to be levied on each type of development for childcare are calculated as follows:

Childcare City-Wide DCL	
Low Density Residential	\$0.41 / sq.ft.
Medium Density Residential	\$0.88 / sq.ft.
High Density Residential	\$1.77 / sq.ft.
Industrial	\$0.71 / sq.ft.
Mixed Employment	\$1.32 / sq.ft.
Commercial & Other	\$1.77 / sq.ft.

8. REPLACEMENT HOUSING DEVELOPMENT COST LEVIES

A. MUNICIPAL SERVICE DELIVERY

The City of Vancouver Housing department is tasked with ensuring that a range of housing options are available to residents that are affordable, accessible, and suitable to a range of needs. The Housing Vancouver strategy provides a foundation and action plan for the City to build more affordable housing, address over-inflation in land costs, ensure the right types of homes are built, protect and renew existing affordable rental housing, provide housing and support to Vancouver’s most vulnerable residents, and streamline City processes for faster housing development.

The *Vancouver Charter* permits the inclusion of capital costs related to “Replacement Housing”, as indicated below:

(2) Council may impose a development cost levy for the purpose of assisting in providing Replacement Housing in such a manner as it deems appropriate and assisting in providing such housing shall be deemed to be a capital project.

(2.2) For the purposes of this section, Replacement Housing means housing which Council reasonably anticipates will, as a result of development in the area in which a development cost levy is imposed, be necessary to house persons displaced and unable to afford comparable accommodation in that area and, in anticipating the housing required, Council may look to development anticipated during a 20 year period commencing on the date the by-law imposing the development cost levy is imposed. (523D, s.2.1)

As such, costs related to providing affordable housing options for residents that are displaced as a result of development can be recovered in part through DCLs.

B. REPLACEMENT HOUSING GROWTH-RELATED CAPITAL PROGRAM

The projects included in the replacement housing capital program are designed to increase the supply of affordable housing and to replace those affordable units that are lost through redevelopment. As neighborhoods in Vancouver gentrify and property values increase, the number of units available to medium to low-income households diminish as well. DCLs are collected to contribute towards the construction of new affordable units to replace those lost through the redevelopment of the certain Vancouver areas.

The goals and objectives of the Housing department are outlined in the Housing Vancouver Strategy, which identifies targets for additional units required. The projects in the DCL capital program (2023-2032) include the construction of 9,125 new units, which includes land acquisitions, as well as contributions toward non-profit and developer led projects. In terms of the Replacement Housing calculation of estimated units lost between 2023-2032, DCL funding will be used to fund up to 4,900 units.

The total growth-related capital program costs amount to \$5.22 billion, of which \$295.47 million is to be funded from DCLs after deducting significant senior government and partner funding shares, benefit to existing shares, other funding sources (CACs and density bonusing, empty homes tax amounts, and available DCL reserves), as well as the 1% municipal assist factor.

An overview of the program is provided in Table 7. Further details of the capital program are listed in Appendix D.

TABLE 7
CITY OF VANCOUVER
DEVELOPMENT COST LEVIES UPDATE STUDY
10-YEAR CAPITAL PROGRAM 2023-2032: REPLACEMENT HOUSING

Replacement Housing Capital Program	Net New Units ¹	Total Gross Cost	Senior Gov. / Partners	Benefit to Existing	Net Growth-Related Costs	Other City Funding Sources	Municipal Assist	DCL Rate Funded 2023-2032
	(#)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
Land Acquisition (VAHEF)	1,750	\$1,013,100	\$711,954	\$13,800	\$287,346	\$160,250	\$1,271	\$125,825
Non-Profit-Led, Capital Grant	5,125	\$3,005,613	\$2,671,225	\$21,888	\$312,500	\$143,750	\$1,688	\$167,063
In-Kind Projects	2,250	\$1,176,450	\$0	\$0	\$1,176,450	\$1,176,450	\$0	\$0
Emerging Priorities		\$24,871	\$0	\$0	\$24,871	\$0	\$249	\$24,623
Available DCL Reserves		\$0	\$0	\$0	\$0	\$22,040	\$0	-\$22,040
Total Replacement Housing	9,125	\$5,220,034	\$3,383,179	\$35,688	\$1,801,167	\$1,502,490	\$3,207	\$295,470

Notes:

1) DCL funding will be used to fund up to 4,900 as per the Replacement Housing calculation.

C. REPLACEMENT HOUSING DCL RATE CALCULATION

The \$295.47 million in DCL funded costs translates to a base DCL rate of \$5.32 per square foot. Using the equivalency factors, the rates to be levied on each type of development for replacement housing are calculated as follows:

Replacement Housing City-Wide DCL	
Low Density Residential	\$1.24 / sq.ft.
Medium Density Residential	\$2.66 / sq.ft.
High Density Residential	\$5.32 / sq.ft.
Industrial	\$2.13 / sq.ft.
Mixed Employment	\$3.99 / sq.ft.
Commercial & Other	\$5.32 / sq.ft.

9. TRANSPORTATION DEVELOPMENT COST LEVIES

A. MUNICIPAL SERVICE DELIVERY

The City of Vancouver's Engineering Services are responsible for upgrading and maintaining the City's transportation infrastructure. The City works with other partners (such as TransLink and other Metro Vancouver municipalities) to build and maintain an integrated transportation system that moves people and goods throughout the City and region.

Development activity places increased demands on the transportation network in Vancouver, by adding additional people and employees that use various forms of transportation to get around. The department must plan and budget to accommodate the increasing use of the City's roads, sidewalks, bike lanes, parking options, and public transit. Ensuring intersections are safe and efficient, bridges are properly maintained, and pedestrian infrastructure is effective and accessible are all key components of properly servicing growth in Vancouver.

B. TRANSPORTATION GROWTH-RELATED CAPITAL PROGRAM

The ten-year capital needs identified to service growth in Vancouver from a transportation perspective are extensive. City staff has identified the growth-related transportation needs between 2023 and 2032 in line with the capital planning exercises, and in consideration of the goals and targets set out by the City's Transportation 2040 plan.

The ten-year growth-related transportation capital program primarily relates to expansion of active transportation and transit-related infrastructure. Projects are grouped into the following categories:

- Building a Resilient Network (bridges and structures, traffic signals and street lights)
- Improving Mobility (transit integrations, active transportation, safety and accessibility); and
- Supporting Public Life (streetscaping and placemaking)

The total growth-related capital program amounts to \$1.52 billion. After deducting senior government and partner shares, benefit to existing or replacement components, other funding sources (development conditions, CACs and density bonusing, and available DCL reserves), and the 1% municipal assist factor, \$399.86 million in DCL rate funded costs remain for the 2023-2032 planning period.

An overview of the program is provided in Table 8. Further details of the capital program are listed in Appendix E.

TABLE 8

CITY OF VANCOUVER
DEVELOPMENT COST LEVIES UPDATE STUDY
10-YEAR CAPITAL PROGRAM 2023-2032: TRANSPORTATION

Transportation Services	Total Gross Cost	Senior Gov. / Partners	Benefit to Existing	Net Growth-Related Costs	Other City Funding Sources	Municipal Assist	DCL Rate Funded 2023-2032
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
Building a Resilient Network							
Bridges & Structures (Excl. Seawall Structures)	\$351,000	\$77,000	\$249,000	\$25,000	\$0	\$250	\$24,750
Pavement & Sidewalks	\$218,000	\$50,000	\$168,000	\$0	\$0	\$0	\$0
Traffic Signals & Street Lights	\$314,890	\$1,500	\$262,200	\$51,190	\$3,150	\$480	\$47,560
Subtotal Building a Resilient Network	\$883,890	\$128,500	\$679,200	\$76,190	\$3,150	\$730	\$72,310
Improving Mobility							
Transit Integration & Reliability	\$84,010	\$53,600	\$3,800	\$26,610	\$0	\$266	\$26,344
Active Transportation & Complete Streets	\$365,280	\$176,500	\$0	\$188,780	\$25,000	\$1,638	\$162,142
Transportation Safety & Accessibility	\$92,270	\$4,250	\$16,635	\$71,385	\$370	\$710	\$70,305
Subtotal Improving Mobility	\$541,560	\$234,350	\$20,435	\$286,775	\$25,370	\$2,614	\$258,791
Supporting Public Life							
Public Gathering & Placemaking	\$39,375	\$0	\$0	\$39,375	\$0	\$394	\$38,981
Commercial High Street Corridors	\$23,130	\$0	\$0	\$23,130	\$5,000	\$181	\$17,949
Subtotal Supporting Public Life	\$62,505	\$0	\$0	\$62,505	\$5,000	\$575	\$56,930
Emerging Priorities	\$27,404	\$0	\$0	\$27,404	\$0	\$274	\$27,130
Available DCL Reserves	\$0	\$0	\$0	\$0	\$15,306	\$0	-\$15,306
Total Transportation Services	\$1,515,359	\$362,850	\$699,635	\$452,874	\$48,826	\$4,194	\$399,855

C. TRANSPORTATION DCL RATE CALCULATION

The \$399.86 million in DCL-eligible costs associated with the transportation program translates to a base DCL rate of \$7.20 per square foot of new development. Using the equivalency factors, the rates to be levied on each type of development for transportation are calculated as follows:

Transportation City-Wide DCL	
Low Density Residential	\$1.67 / sq.ft.
Medium Density Residential	\$3.60 / sq.ft.
High Density Residential	\$7.20 / sq.ft.
Industrial	\$2.88 / sq.ft.
Mixed Employment	\$5.40 / sq.ft.
Commercial & Other	\$7.20 / sq.ft.

10. UTILITIES DEVELOPMENT COST LEVIES

A. MUNICIPAL SERVICE DELIVERY

Utility services at the City of Vancouver include the provision of water distribution, sanitary sewers and storm water drainage needs, including green infrastructure.

The region of Metro Vancouver owns and operates the water source, treatment and regional water transmission system, while the City is responsible for local water distribution system to supply water to residents and businesses. The Water DCL addresses the water infrastructure that is the responsibility of the City of Vancouver, namely the local distribution system, including water mains and related infrastructure.

The region of Metro Vancouver owns and operates the regional trunk sewers and major wastewater treatment plants while the City is responsible for the local sewers to collect sewage from residents and businesses. The Sanitary and Drainage DCLs address the sewer infrastructure that is the responsibility of the City of Vancouver, namely the local collection system, sewer mains, and storm water systems, including green infrastructure to address growth needs related to drainage.

B. UTILITY SERVICES GROWTH-RELATED CAPITAL PROGRAMS

The following section provides an overview of Utility Services growth-related capital program, including both the Water program and the Sanitary and Drainage program. Further details of the capital program are listed in Appendix F.

i. Water Services

The City's Engineering department has identified \$38.71 million in gross capital costs related to various water system upgrades, as well as hydraulic modelling, over the period 2023 to 2032. Some of these gross project costs (\$5.9 million) have been identified as relating to development beyond the ten-year planning period. After deducting benefit to existing or replacement shares, growth-related shares to be funded through other sources (development conditions, available DCL reserves), as well as the municipal assist factor, \$12.82 million in DCL rate funded costs remain for recovery over the 2023-2032 period.

An overview of the program is provided in Table 9.

TABLE 9

CITY OF VANCOUVER
 DEVELOPMENT COST LEVIES UPDATE STUDY
 10-YEAR CAPITAL PROGRAM 2023-2032: WATER SERVICES

Water Services	Total Gross Cost	Senior Gov. / Partners	Post-Period (2033+)	Benefit to Existing	Net Growth-Related Costs	Other City Funding Sources	Municipal Assist	DCL Rate Funded 2023-2032
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
Water System Upgrades	\$37,155	\$0	\$5,932	\$397	\$30,826	\$18,760	\$121	\$11,945
Hydraulic Model	\$390	\$0	\$0	\$98	\$293	\$0	\$3	\$290
Emerging Priorities	\$1,166	\$0	\$0	\$0	\$1,166	\$0	\$12	\$1,154
Available DCL Reserves	\$0	\$0	\$0	\$0	\$0	\$573	\$0	-\$573
Total Water Services	\$38,711	\$0	\$5,932	\$494	\$32,285	\$19,333	\$135	\$12,816

ii. **Sanitary and Drainage**

The City has a significant Sanitary and Drainage growth-related capital program, totaling \$2.06 billion in gross costs. Projects in the Sanitary and Drainage capital program include extensive sewer and green infrastructure upgrades serving the Broadway and Cambie corridors, as well as other growing areas throughout the city. The program also includes growth-related pump stations, hydraulic modelling and monitoring initiatives, planning and other studies.

A significant share of the program, \$605.01 million, has been identified as “post-period”, or related to growth that is anticipated to occur beyond the 2023-2032 planning period, and is removed from the DCL calculation. Senior government and partner-funded shares, benefit to existing or replacement shares, shares to be funded through development conditions and available DCL reserves, and the municipal assist share have also been deducted from the gross costs. The remaining amount eligible for funding through DCLs collected over the 2023-2032 period is \$636.95 million.

An overview of the program is provided in Table 10.

TABLE 10

CITY OF VANCOUVER
DEVELOPMENT COST LEVIES UPDATE STUDY
10-YEAR CAPITAL PROGRAM 2023-2032: SANITARY & DRAINAGE

Sanitary & Drainage	Total Gross Cost	Senior Gov. / Partners	Post-Period (2033+)	Benefit to Existing	Net Growth-Related Costs	Other City Funding Sources	Municipal Assist	DCL Rate Funded 2023-2032
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
Cambie Projects (Sanitary & Drainage Upgrades)	\$223,511	\$2,000	\$80,000	\$7,274	\$134,237	\$12,940	\$1,213	\$120,084
Broadway Projects (Sanitary & Drainage Upgrades)	\$267,130	\$2,100	\$140,370	\$15,790	\$108,870	\$0	\$1,089	\$107,781
City Wide Projects (Sanitary & Drainage Upgrades)	\$1,296,709	\$14,400	\$384,640	\$638,026	\$259,643	\$16,695	\$2,429	\$240,519
Pump Stations	\$67,125	\$0	\$0	\$36,000	\$31,125	\$0	\$311	\$30,814
Hydraulic Model & Monitoring	\$75,450	\$0	\$0	\$35,500	\$39,950	\$0	\$400	\$39,551
Planning & Other Studies	\$79,300	\$0	\$0	\$4,860	\$74,440	\$0	\$744	\$73,696
Emerging Priorities	\$50,624	\$0	\$0	\$0	\$50,624	\$0	\$506	\$50,118
Available DCL Reserves	\$0	\$0	\$0	\$0	\$0	\$25,616	\$0	-\$25,616
Total Sanitary & Drainage	\$2,059,850	\$18,500	\$605,010	\$737,450	\$698,890	\$55,251	\$6,693	\$636,946

C. UTILITY SERVICES DCL RATE CALCULATION

The Utility Services DCL funding of the water service, \$12.82 million, combined with the \$636.95 million DCL-eligible sewer and drainage costs yields a total amount of \$649.76 million. This translates to a base DCL rate of \$13.66 per square foot of new development. Using the equivalency factors, the rates to be levied on each type of development for Utility Services are calculated as follows:

Utility Services City-Wide DCL	
Low Density Residential	\$3.17 / sq.ft.
Medium Density Residential	\$6.83 / sq.ft.
High Density Residential	\$13.66 / sq.ft.
Industrial	\$2.73 / sq.ft.
Mixed Employment	\$5.12 / sq.ft.
Commercial & Other	\$6.83 / sq.ft.

11. DCL RATE SUMMARY AND IMPLEMENTATION

A. SUMMARY OF CALCULATED DCL RATES

The rate calculation as a general fee per square foot is shown on Table 4 within Section 5. The net DCL recoverable costs for each service category are divided by the increase in both residential and non-residential weighted GFA to derive a cost per square foot. As shown, the overall City-wide charge is calculated at \$35.46 per square foot.

For both residential and non-residential development, the DCL to be charged is converted to a variable rate by development type based on equivalency factors, which are explained further in Section 5.

The calculated residential DCLs are shown on Table 11. The residential rate for low density built form is calculated at \$8.23 per square foot. Low density refers to development with a Floor Space Ratio (FSR) of 1.2 or less, or laneway houses. These are most often in the form of single and semi-detached housing. Medium density residential refers to units with an FSR between 1.2 and 1.5, generally consistent with townhouse development. The calculated rate for medium density residential development is \$17.72 per square foot. Higher density residential, largely apartment units with an FSR of above 1.5, will pay \$35.46 per square foot of GFA.

The calculated non-residential City-wide DCLs are summarized on Table 12. Similar to the residential rates, the non-residential charges will vary by development type. The rate for heavy industrial is calculated at \$11.45 per square foot. This category is relevant to the zoning district within which development is to occur. Mixed employment, also referred to as 'light industrial' which includes a mix of office and industrial uses, would be subject to a charge of \$21.46 per square foot of GFA. Lastly, the charge for commercial development, or all other non-residential growth that does not fit within the industrial categories is calculated at \$28.63 per square foot.

It is noted that the calculation of the development cost levies does not include any provision for waivers or discounts which are at the discretion of Council, such as the treatment of rental housing or reduced rates. Such waivers or discounts that Council may choose to provide will result in loss of DCL revenue for the affected types of development. However, any such revenue loss may not be made up by offsetting increases in other portions of the calculated charge.

TABLE 11

CITY OF VANCOUVER
DEVELOPMENT COST LEVIES
RESIDENTIAL DEVELOPMENT COST LEVIES

Service	Calculated Charge Per Square Foot	Residential Charge By Square Foot ¹		
		Low Density Residential <i>Below 1.2 FSR & Laneway</i>	Medium Density Residential <i>Between 1.2 and 1.5 FSR</i>	High Density Residential <i>Above 1.5 FSR</i>
Parks	\$7.51	\$1.74	\$3.75	\$7.51
Childcare	\$1.77	\$0.41	\$0.88	\$1.77
Housing	\$5.32	\$1.24	\$2.66	\$5.32
Transportation	\$7.20	\$1.67	\$3.60	\$7.20
Utility Services				
<i>Water</i>	<i>\$0.27</i>	<i>\$0.06</i>	<i>\$0.13</i>	<i>\$0.27</i>
<i>Sewer</i>	<i><u>\$13.39</u></i>	<i><u>\$3.11</u></i>	<i><u>\$6.70</u></i>	<i><u>\$13.39</u></i>
Sub-Total Utility Services	\$13.66	\$3.17	\$6.83	\$13.66
TOTAL CHARGE PER SQ.FT.	\$35.46	\$8.23	\$17.72	\$35.46

1) Based on Equivalent Factor Of:

<i>City-Wide DCL</i>	<i>0.232</i>	<i>0.500</i>	<i>1.000</i>
<i>Utilities DCL</i>	<i>0.232</i>	<i>0.500</i>	<i>1.000</i>

TABLE 12

**CITY OF VANCOUVER
DEVELOPMENT COST LEVIES
NON-RESIDENTIAL DEVELOPMENT COST LEVIES**

Service	Calculated Charge Per Square Foot	Non-Residential Charge By Square Foot ¹		
		Industrial ²	Mixed Employment ³	Commercial & Other
Parks	\$7.51	\$3.00	\$5.63	\$7.51
Childcare	\$1.77	\$0.71	\$1.32	\$1.77
Housing	\$5.32	\$2.13	\$3.99	\$5.32
Transportation	\$7.20	\$2.88	\$5.40	\$7.20
Utility Services				
Water	\$0.27	\$0.05	\$0.10	\$0.13
Sewer	<u>\$13.39</u>	<u>\$2.68</u>	<u>\$5.02</u>	<u>\$6.70</u>
Sub-Total Utility Services	\$13.66	\$2.73	\$5.12	\$6.83
TOTAL CHARGE PER SQ.FT.	\$35.46	\$11.45	\$21.46	\$28.63

1) Based on Equivalent Factor Of:

<i>City-Wide DCL</i>	<i>0.400</i>	<i>0.750</i>	<i>1.000</i>
<i>Utilities DCL</i>	<i>0.200</i>	<i>0.375</i>	<i>0.500</i>

2) Industrial applies to I-2, M-1, M-1A, M-1B, M-2, MC-1, MC-2 zoning districts

3) Mixed Employment (Light Industrial) applies to IC-1, IC-2, IC-3, I-1, I-3 and I-4 zoning districts

B. COMPARISON WITH CURRENT RATES IN FORCE

Table 13 presents a comparison of the newly calculated residential and non-residential development cost levies with the City’s current charges (as at September 30, 2021).

Overall, the calculated residential DCLs are approximately 25% higher than the current rates in force. The calculated non-residential DCLs are approximately 38% higher than the current rates in force. The higher non-residential increase is due to the City historically and currently charging non-residential DCL rates that are less than full cost recovery.

TABLE 13

CITY OF VANCOUVER
 COMPARISON OF CURRENT AND CALCULATED
 DCLS - CITY-WIDE

Development Type	Current DCL Rates ¹ Charge / Sq.Ft.	Calculated DCL Rates Charge / Sq.Ft.	Difference in Charge	
Residential Development				
Low Density <i>Below 1.2 FSR & Laneway</i>	\$6.56	\$8.23	\$1.67	25%
Medium Density <i>Development between 1.2 & 1.5 FSR</i>	\$14.17	\$17.72	\$3.55	25%
High Density <i>Development Above 1.5 FSR</i>	\$28.37	\$35.46	\$7.09	25%
Non-Residential Development				
Industrial	\$8.28	\$11.45	\$3.17	38%
Mixed Employment	\$15.55	\$21.46	\$5.91	38%
Commercial & Other	\$20.71	\$28.63	\$7.92	38%

1) Rates effective September 30, 2021

C. RECOMMENDED PHASE-IN

Staff is making recommendations, for Council’s consideration, on the implementation of the new DCL By-law. These recommendations include a phase-in of the DCL rate increase, with 50% of the rate increase taking effect on September 30, 2022, and the remaining 50% coming into force on September 30, 2023.

In addition to this recommended DCL rate phase-in, the City offers 12 months of in-stream DCL rate protection (as required through the legislation): applications submitted prior to a DCL rate change can avoid paying the DCL rate increase if a building permit is issued prior to next year’s rate change.

Staff are of the opinion that the rate phase-in combined with the in-stream rate protection offers an adequate amount of time for new development to adjust to the new rates.

D. BY-LAW EXEMPTIONS AND RATE REDUCTIONS

The City of Vancouver, through the *Vancouver Charter* and the City's by-laws, will continue to exempt the following development from the payment of DCLs:

- Alterations to existing buildings where the total floor area is not increased;
- Social housing;
- Churches exempt from taxation;
- Renovations;
- Additions smaller than 500 square feet to existing buildings containing fewer than 4 residential units and no other use; and
- Small residential units of 29.7 square metres (320 square feet) or less, subject to Council approval.

The City currently provides City-wide DCL waivers for market rental housing. Utilities DCL waivers are not offered for rental. The lost revenue associated with the City-wide DCL waiver must be funded from other sources, which largely comes from the property tax base or utility fees. With significant recent strengthening of the rental market in Vancouver, staff are recommending a change in the City-wide DCL waiver for for-profit market rents to an 86% DCL reduction. The 100% City-wide DCL waiver would be maintained for for-profit rental that has a 20% below-market component.

The City also offers reduced DCL rates for various uses, including various institutional uses (childcare, community centre, community energy centre, cultural facility, library, public authority use, social service centre, school) as well as temporary buildings, works yards, and parking garages. City staff are proposing to:

- Remove the above ground parking garage reduced rate; and
- Add an expanded reduced rate for cultural facilities which includes artist studios, galleries, halls, museums or archives, theatres, and performance or rehearsal studios.

E. COLLECTION OF CHARGES

DCLs in the City of Vancouver are payable at the issuance of building permit. This practice is recommended to continue.

The City currently offers a payment of DCLs by installments option. This option is administratively complex, with little uptake. Staff are recommending to remove the payment of levy by installments options.

F. IN-STREAM RATE PROTECTION

In order to ensure fairness to applications that have been submitted prior to the adoption of DCL By-law rate adjustments, in-stream rate protection is offered as mandated by the Vancouver Charter. Building permits issued within 12 months of a DCL By-law amendment are exempt from that DCL rate increase, provided there was a precursor application (rezoning, development permit or building permit application) that was in-stream on the date of that increase, and provided that:

- The applicant has submitted an application in a form satisfactory to the City; and
- The applicant has paid the applicable application fee to the City.

If a related building permit application is not issued within the 12-month period, the rate protection expires and new DCL rates take effect.

G. DCL MONITORING AND REPORTING

The City currently undertakes annual reporting on DCL revenues and expenditures. It is recommended that this practice continue to ensure transparency and facilitates regular updates to the calculation.

APPENDIX A

DEVELOPMENT FORECAST

DEVELOPMENT FORECAST

This appendix provides details of the development forecast used to prepare the 2022 City-wide and Utilities Development Cost Levy Update Background Study (DCL Update Study) for the City of Vancouver. The planning period being used for the DCL is the ten-year period of 2023 to 2032.

A. BACKGROUND AND METHODOLOGY

Consistent with BC's DCC Best Practices Guide, the development forecast includes a forecast of new floor space development over the ten-year DCL planning period of 2023-2032. The development forecast was prepared by the City's planning department using:

- Development pipeline data (rezoning and development permit applications in-stream);
- Assumptions related to the percentage of major projects to be built out over the ten-year timeframe, including active major project sites city-wide (e.g. Oakridge Centre, East Fraser Lands, Little Mountain, Jericho); and
- Recent development trends related to low density residential development including laneways, duplexes, and townhouses.

B. FORECAST RESULTS

i. Residential Forecast

Over the next ten years, the forecasted net increase in residential floor area across the City is 41.9 million square feet. The residential GFA growth forecast totals 56.2 million square feet of residential space.

Map 1 illustrates the anticipated distribution of residential growth across the city over the 2023-2032 planning period. Much of the new growth is anticipated in the downtown area, central corridor, and the east side of the city.

City-wide Residential Growth Forecast	2023-2032 Growth
Residential Floor Area Net Growth (sq.ft.)	<i>41,862,851</i>
<i>Below 1.2 FSR (LWH, Duplex)</i>	<i>3,956,316</i>
<i>1.2-1.5 FSR (Townhouse)</i>	<i>1,964,864</i>
<i>FSR 1.5 and more (Apartment)</i>	<i>35,941,670</i>
Residential Floor Area Gross Growth (sq.ft.) (1)	<i>56,210,460</i>
<i>Below 1.2 FSR (LWH, Duplex)</i>	<i>20,033,875</i>
<i>1.2-1.5 FSR (Townhouse)</i>	<i>2,481,155</i>
<i>FSR 1.5 and more (Apartment)</i>	<i>33,695,430</i>

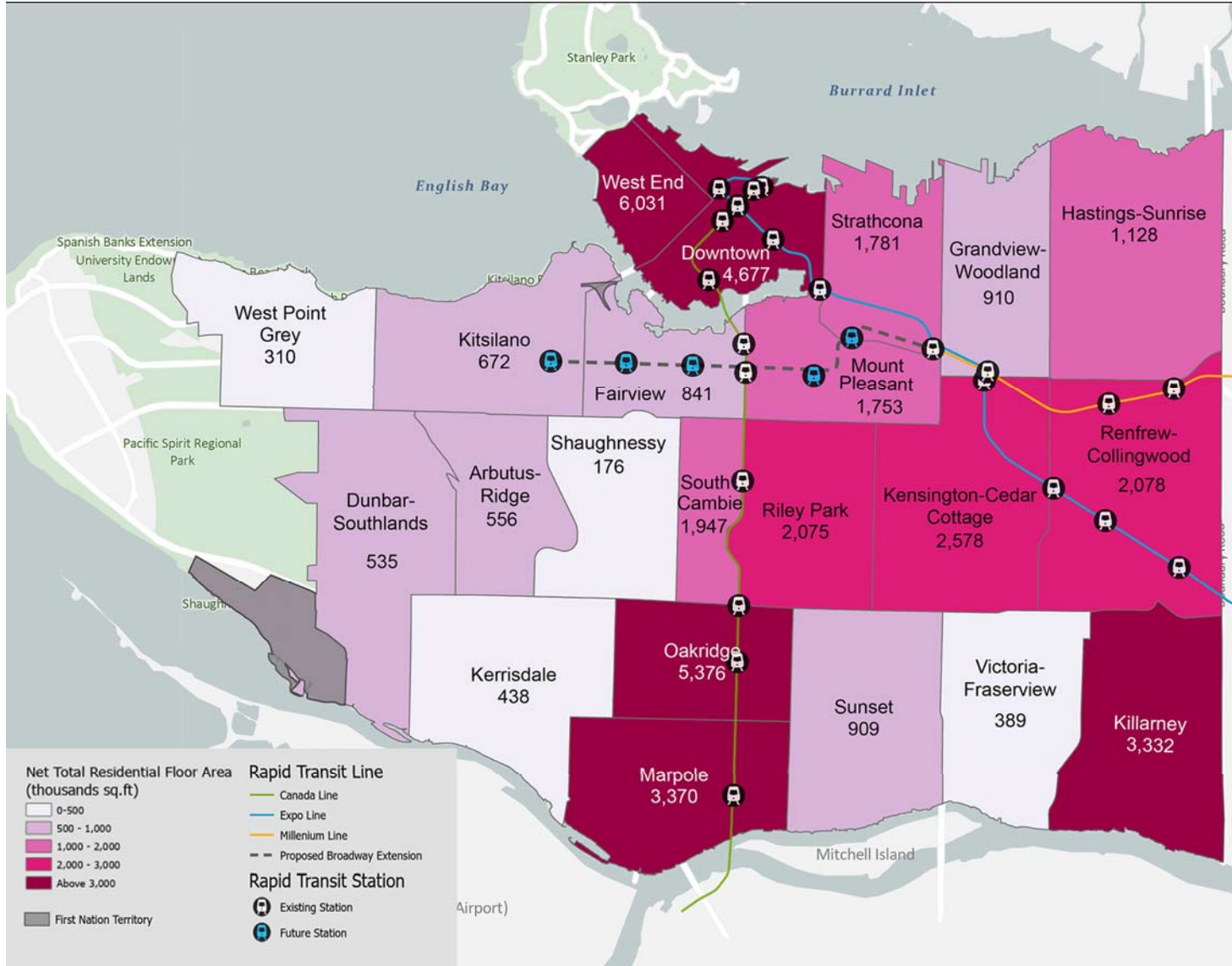
ii. Non-Residential Forecast

The non-residential forecast projects an increase of 14.3 million square feet of net new non-residential building space. The gross non-residential GFA growth over the ten-year planning period totals 18.3 million square feet, of which 70% will be commercial floor space.

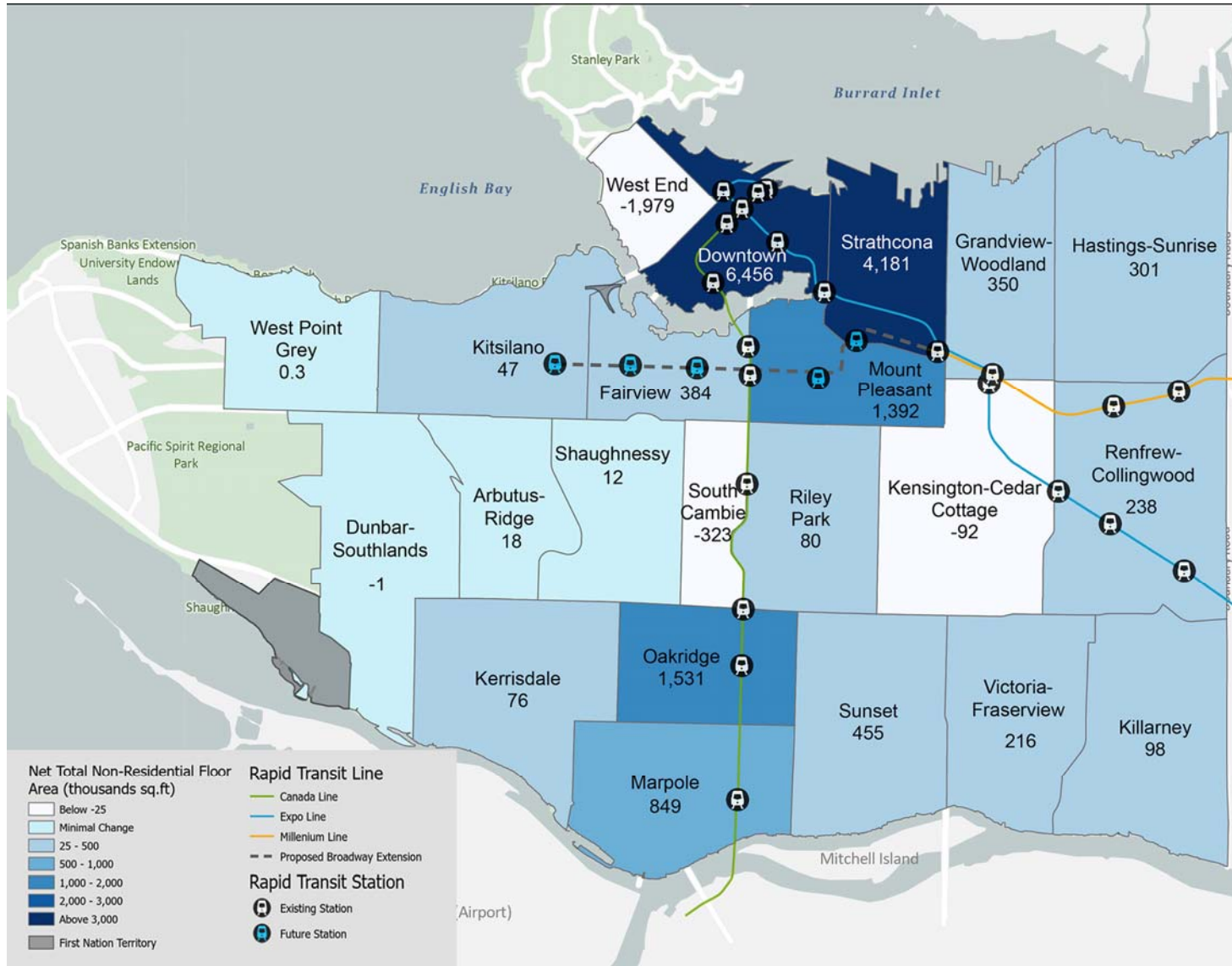
Map 2 illustrates the distribution of the anticipated non-residential floor space growth across the city. Much of this growth is anticipated in the downtown area in the form of major commercial office projects. The map also reflects the relocation of St. Paul’s Hospital from the West End to Strathcona. Significant growth is also anticipated in the Oakridge and Mount Pleasant areas.

City-wide Non-Residential Growth Forecast	2023-2032 Growth
Non-Residential Floor Area Net Growth (sq.ft.)	14,289,765
<i>Commercial</i>	9,681,005
<i>Industrial</i>	2,348,925
<i>Mixed Employment</i>	1,412,943
<i>Reduced Rate</i>	846,892
Non-Residential Floor Area Gross Growth (sq.ft.)	18,328,677
<i>Commercial</i>	12,821,065
<i>Industrial</i>	2,898,416
<i>Mixed Employment</i>	1,762,304
<i>Reduced Rate</i>	846,892

Map 1. Residential Development Forecast (2023-2032): Net Increase of Residential Floor Area (thousands sq.ft.)



Map 2. Non-Residential Development Forecast (2023-2032): Net Increase of Non-Residential Floor Area (thousands sq.ft.)



APPENDIX B
PARKS DCL CAPITAL PROGRAM

PARKS DCL CAPITAL PROGRAM

A. ESTABLISHING THE DEMAND FOR SERVICE

Park Board decision-making is guided by VanPlay, the Parks and Recreation Master Plan which was completed in 2018. The City maintains a target provision of 1.1 hectares of neighbourhood parkland for every 1,000 residents, supplemented by the goal of providing a green space within a five-minute walk of all residents. Currently 73% of residents live within a five minute walk of green space, and 99% live within a ten minute walk. These goals are challenging given the limited availability and high cost of land in Vancouver.

B. CAPITAL PROGRAM

The capital program includes 5.30 hectares of parkland acquisitions at a total gross cost of \$165.28 million. The parkland acquisitions include areas such as Sunset, Kensington-Cedar Cottage, Kitsilano, Marpole, Mount Pleasant, and Renfrew-Collingwood, among others.

Growth-related Seawall and waterfront projects include expansions and improvements to the Seaside Greenway, new and upgraded marine assets, and coastal resiliency projects. These projects are attributed a total gross cost of \$26.00 million.

Urban forest and natural areas projects total \$107.80 million in gross costs. They include natural area expansions, biodiversity planning, tree planting, local food assets, and other enhancements.

The capital program includes the design and development of parkland amenity additions and enhancements to various parks across the City. These gross costs total \$172.50 million.

Buildings and infrastructure projects total \$39.65 million in gross costs and include 20 new public washrooms as well as lighting installations, signage, furnishings, pathway improvements, in-park green infrastructure projects, and various infrastructure upgrades.

Finally, \$28.18 million has been included to cover emerging priorities to meet location-specific needs driven by development as it occurs.

In total, the Parks capital program includes \$539.41 million in gross costs. No senior government or partner-funded shares have been identified. Approximately \$39.25 million

is considered to benefit existing development (e.g. replacement shares), leaving \$500.16 million in net growth-related costs.

Of the net growth related amount, \$43.80 is anticipated to be provided through CACs and density bonusing and has been removed from the DCL calculation. A further \$35.19 million will be funded by layered DCLs, as well as available DCL reserves. The 1% municipal assist factor, equal to \$4.32 million, has also been removed from the DCL calculations and must be funded by other City sources such as property taxes. After these deductions, the remaining DCL-recoverable amount of \$416.85 million is brought forward to the DCL rate calculations.

Parks Capital Program	Park Area	Total Gross Cost	Senior Gov. / Partners	Benefit to Existing	Net Growth-Related Costs	CAC / Density Bonusing	Other City Funding Sources	Municipal Assist	DCL Rate Funded 2023-2032
	(ha)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
Parkland Acquisition¹ Kensington-Cedar Cottage Kitsilano Marpole Mount Pleasant Renfrew-Collingwood Sunset Other parkland	5.30	\$165,280	\$0	\$0	\$165,280	\$0	\$0	\$1,653	\$163,627
Seawall & Waterfront		\$26,000	\$0	\$12,000	\$14,000	\$5,000	\$0	\$90	\$8,910
Expansion/Improvements Seaside Greenway		\$4,000	\$0	\$1,000	\$3,000	\$0	\$0	\$30	\$2,970
New/Upgraded Marine Assets		\$6,000	\$0	\$3,000	\$3,000	\$0	\$0	\$30	\$2,970
Coastal Resiliency Planning & Projects		\$16,000	\$0	\$8,000	\$8,000	\$5,000	\$0	\$30	\$2,970
Urban Forest & Natural Areas		\$107,800	\$0	\$0	\$107,800	\$0	\$134	\$1,077	\$106,589
Natural Area Expansion		\$11,500	\$0	\$0	\$11,500	\$0	\$0	\$115	\$11,385
Stream Daylighting, Wetlands, & Enhancements (Still Creek, Canyon Creek, Hastings Park Stream, Beaconsfield Park, Gibbys, Hasitngs Park, Charleson)		\$25,500	\$0	\$0	\$25,500	\$0	\$134	\$255	\$25,111
Biodiversity Strategy & Planning		\$2,000	\$0	\$0	\$2,000	\$0	\$0	\$20	\$1,980
Tree Planting in Parks		\$47,000	\$0	\$0	\$47,000	\$0	\$0	\$470	\$46,530
Local Food Assets		\$1,800	\$0	\$0	\$1,800	\$0	\$0	\$18	\$1,782
Convert Parkland to healthy habitat		\$20,000	\$0	\$0	\$20,000	\$0	\$0	\$200	\$19,800

Parks Capital Program	Park Area	Total Gross Cost	Senior Gov. / Partners	Benefit to Existing	Net Growth-Related Costs	CAC / Density Bonusing	Other City Funding Sources	Municipal Assist	DCL Rate Funded 2023-2032
	(ha)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
Park Amenities (Design & Dev't)		\$172,500	\$0	\$22,100	\$150,400	\$36,303	\$24,037	\$901	\$89,160
East Park (SEFC)		\$41,800	\$0	\$0	\$41,800	\$0	\$18,990	\$228	\$22,582
7th & Main		\$1,000	\$0	\$0	\$1,000	\$0	\$0	\$10	\$990
Burrard Slopes		\$14,000	\$0	\$0	\$14,000	\$0	\$0	\$140	\$13,860
East Fraser Lands (various parks)		\$19,100	\$0	\$0	\$19,100	\$0	\$0	\$191	\$18,909
Nicola & Alberni		\$3,000	\$0	\$0	\$3,000	\$0	\$3,000	\$0	\$0
Little Mountain		\$250	\$0	\$0	\$250	\$0	\$0	\$3	\$248
Pearson Dogwood		\$3,350	\$0	\$0	\$3,350	\$3,350	\$0	\$0	\$0
Upgraded Park Amenities		\$65,000	\$0	\$22,100	\$42,900	\$32,953	\$2,047	\$79	\$7,821
Other new parks/expansions		\$25,000	\$0	\$0	\$25,000	\$0	\$0	\$250	\$24,750
Buildings & Infrastructure		\$39,650	\$0	\$5,150	\$34,500	\$2,500	\$0	\$320	\$31,680
New park washrooms (20)		\$18,000	\$0	\$0	\$18,000	\$0	\$0	\$180	\$17,820
Electrical Distribution Systems Upgrades		\$1,000	\$0	\$750	\$250	\$0	\$0	\$3	\$248
Lighting installations (turf fields & other)		\$4,500	\$0	\$0	\$4,500	\$2,500	\$0	\$20	\$1,980
Park signage		\$800	\$0	\$400	\$400	\$0	\$0	\$4	\$396
New park furnishings		\$600	\$0	\$0	\$600	\$0	\$0	\$6	\$594
Pathway improvements & Other		\$1,600	\$0	\$0	\$1,600	\$0	\$0	\$16	\$1,584
Infrastructure upgrades		\$6,000	\$0	\$3,000	\$3,000	\$0	\$0	\$30	\$2,970
In-park GI Projects		\$2,000	\$0	\$0	\$2,000	\$0	\$0	\$20	\$1,980
Park electrification		\$3,150	\$0	\$0	\$3,150	\$0	\$0	\$32	\$3,119
Universal access improvements		\$2,000	\$0	\$1,000	\$1,000	\$0	\$0	\$10	\$990
Emerging Priorities		\$28,183	\$0	\$0	\$28,183	\$0	\$0	\$282	\$27,901
Available DCL Reserves		\$0	\$0	\$0	\$0	\$0	\$11,020	\$0	-\$11,020
Total Parks		\$539,413	\$0	\$39,250	\$500,163	\$43,803	\$35,191	\$4,322	\$416,847

APPENDIX C

CHILDCARE DCL CAPITAL PROGRAM

CHILDCARE DCL CAPITAL PROGRAM

A. ESTABLISHING THE DEMAND FOR SERVICE

The projects included in the childcare capital program were designed to accommodate the increased demands on the service imposed by development in the City. The number and type of spaces included in the program are tied directly to the City's development forecasts: as growth occurs, and the population and employment base grows, additional childcare spaces must be made available.

The City uses three methods to calculate demand for childcare spaces: the Childcare Calculator for new developments, a simple childcare space ratio to determine relative shortfall, and the Supply/Demand model based on a study by Mab Oloman (2010). The need for childcare spaces is driven by the amount of residential development, the forecasted age-profile of those in the childcare age ranges, and growth in employment (as not all employees that work in the City also reside in the City and therefore a segment of increased childcare need is not captured by residential growth and population changes). The City aims to maintain one daycare space per 100 employees as well as one space for 50% of pre-school aged children with working mothers.

B. CAPITAL PROGRAM

The needs analysis identifies the provision of 1,895 new child spaces over the ten-year planning period of 2023-2032 at a gross cost of \$347.74 million. Of these spaces, 1,795 are for ages 0 through 4, at a total gross cost of \$334.54 million. These include 716 spaces to be provided through Civic Buildings such as Community Centres distributed widely across the city to align with need. The capital program also includes conversions from part-day to full-day daycare, adding capacity to the system. The remaining 899 spaces will be provided through partnerships and granting, and include developer-led, NPO-led, and indigenous-led projects as well as other in-kind contributions.

Another 100 spaces will provide out of school care for ages 5 through 12, provided through two projects at a total gross cost of \$5.00 million. The capital program allows for an additional \$8.20 million to fund emerging priorities as development occurs.

Of the total gross costs, \$63.57 million is anticipated to be funded through senior government or partner shares. Another \$18.90 million is related to the replacement of existing childcare spaces and is therefore not considered to be growth-related. After these deductions, \$265.27 million in net growth-related costs remains.

Approximately \$123.78 million of the growth-related capital costs will be provided through CACs and density bonusing. Another \$42.17 million will be funded through layered DCLs and the available City-wide DCL reserve balance. The 1% municipal assist share, equal to \$1.27, will be funded through other City sources such as property taxes. The remaining \$98.05 million is brought forward to the DCL rate calculation to be recovered from development over the 2023-2032 period.

Childcare Capital Program	Net New Spaces ¹	Total Gross Cost	Senior Gov. / Partners	Benefit to Existing	Net Growth-Related Costs	CAC / Density Bonusing	Other City Funding Sources	Municipal Assist	DCL Rate Funded 2023-2032
	(#)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
Spaces for Ages 0-4									
Civic Buildings (e.g. Community Centres) VAHEF Projects (2 locations) Ray-Cam Cooperative Centre Olympic Village School West End Civic Centre Cedar Cottage Neighbourhood House Britannia Community Centre Marpole Civic Centre EFL Community Centre Childcare Kensington Community Centre Additional school project	716	\$149,710	\$25,040	\$18,900	\$105,770	\$8,330	\$9,460	\$880	\$87,100
Developer-Led, In-Kind 9 in-kind projects	450	\$94,500	\$0	\$0	\$94,500	\$87,665	\$2,950	\$39	\$3,846
NPO-Led, In-Kind 3 in-kind projects	188	\$39,480	\$13,810	\$0	\$25,670	\$19,380	\$0	\$63	\$6,227
Conversion from Part-Day to Full-Day 4 conversions	180	\$1,800	\$0	\$0	\$1,800	\$0	\$0	\$18	\$1,782
Indigenous-Led, Capital Grant 2 projects	74	\$15,540	\$2,960	\$0	\$12,580	\$0	\$0	\$126	\$12,454
NPO-Led, Capital Grant 3 projects	147	\$25,110	\$17,760	\$0	\$7,350	\$0	\$1,800	\$56	\$5,495
Part-Day Preschool, In-Kind 2 projects	40	\$8,400	\$0	\$0	\$8,400	\$8,400	\$0	\$0	\$0
Sub-Total Spaces for Ages 0-4	1,795	\$334,540	\$59,570	\$18,900	\$256,070	\$123,775	\$14,210	\$1,181	\$116,904
Spaces for Ages 5-12									
OOSC / Indigenous-Led 2 projects	100	\$5,000	\$4,000	\$0	\$1,000	\$0	\$0	\$10	\$990
Sub-Total Spaces for Ages 5-12	100	\$5,000	\$4,000	\$0	\$1,000	\$0	\$0	\$10	\$990
Emerging Priorities		\$8,198	\$0	\$0	\$8,198	\$0	\$0	\$82	\$8,116
Available DCL Reserves		\$0	\$0	\$0	\$0	\$0	\$27,959	\$0	-\$27,959
Total Childcare	1,895	\$347,738	\$63,570	\$18,900	\$265,268	\$123,775	\$42,169	\$1,273	\$98,052

Notes:

1) Childcare spaces shown are fully growth-related. The City will add additional spaces to address existing needs and those spaces, and associated costs are not reflected above.

APPENDIX D
REPLACEMENT HOUSING
DCL CAPITAL PROGRAM

REPLACEMENT HOUSING DCL CAPITAL PROGRAM

A. ESTABLISHING THE DEMAND FOR SERVICE

The goals and objectives of the Housing department are outlined in the Housing Vancouver Strategy, which identifies targets for additional units required. As only Replacement Housing is eligible for DCL funding under the Vancouver Charter, the City estimates the number of units that will be demolished due to development over the ten-year planning period for inclusion in the DCL calculations.

B. CAPITAL PROGRAM

The capital program includes total gross costs associated with 9,125 housing units at a total gross cost of \$5.22 billion; however, DCL funding will be used for the Replacement Housing portion at 4,900 units.

The gross capital program includes City land acquisitions for 1,750 units, 5,125 capital grant-supported non-profit led units, 2,250 projects provided in-kind (at no cost to the City), as well as a \$24.87 million allocation to additional emerging priorities in order to respond to development as it occurs.

A significant share of the gross capital program, \$3.38 billion, is anticipated to be funded by senior government and partner contributions. Approximately \$35.69 million in benefit to existing or replacement shares has been identified, leaving \$1.80 billion in net growth-related costs. Of this amount, CACs and density bonusing contributions will cover \$1.28 billion of the costs, primarily associated with the 2,250 in-kind units. Revenues from the Empty Homes Tax, as well as the available DCL reserve balance, will fund \$222.04 million. The 1% municipal assist share results in another \$3.21 million deduction, leaving \$295.47 million to be brought forward to the 2023-2032 DCL rate calculations.

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Replacement Housing Capital Program	Net New Units	Total Gross Cost	Senior Gov. / Partners	Benefit to Existing	Net Growth-Related Costs	CAC / Density Bonusing	Other City Funding Sources	Municipal Assist	DCL Rate Funded 2023-2032
	(#)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
Land Acquisition (VAHEF)	1,750	\$1,013,100	\$711,954	\$13,800	\$287,346	\$104,000	\$56,250	\$1,271	\$125,825
Non-Profit-Led, Capital Grant	5,125	\$3,005,613	\$2,671,225	\$21,888	\$312,500	\$0	\$143,750	\$1,688	\$167,063
In-Kind Projects	2,250	\$1,176,450	\$0	\$0	\$1,176,450	\$1,176,450	\$0	\$0	\$0
Emerging Priorities		\$24,871	\$0	\$0	\$24,871	\$0	\$0	\$249	\$24,623
Available DCL Reserves		\$0	\$0	\$0	\$0	\$0	\$22,040	\$0	-\$22,040
Total Housing Capital Program*	9,125	\$5,220,034	\$3,383,179	\$35,688	\$1,801,167	\$1,280,450	\$222,040	\$3,207	\$295,470

*DCLs fund Replacement Housing Calculation which is estimated to be 4,900 units

APPENDIX E

TRANSPORTATION DCL CAPITAL PROGRAM

TRANSPORTATION DCL CAPITAL PROGRAM

A. ESTABLISHING THE DEMAND FOR SERVICE

Development activity places increased demands on the transportation network in Vancouver, by adding additional people and employees that use various forms of transportation to get around. The department must plan and budget to accommodate the increasing use of the City's roads, sidewalks, bike lanes, parking options, and public transit. Ensuring intersections are safe and efficient, bridges are properly maintained, and pedestrian infrastructure is effective and accessible are all key components of properly servicing growth in Vancouver.

Mobility in Vancouver is guided by policies in Transportation 2040, a long-term strategic plan for the City that will help guide transportation and land use decisions and public investments for the years ahead. The plan supports “a thriving economy while increasing affordability; healthy citizens who are mobile in a safe, accessible, and vibrant city; and an enhanced natural environment that ensures a healthy future for people and the planet.”

Active modes of transportation – that is, walking, cycling and rolling – are central to that vision for Vancouver. Public transit, private vehicles, and goods movement also have important roles to play, but this vision cannot be achieved without land use mix and density, infrastructure, and a culture that supports and encourages Vancouver residents to choose walking and cycling for more of their trips.

One of the central goals of Transportation 2040, supported by other City priorities and strategies, is making two-thirds of all trips by foot, bike, or transit. The 2040 Plan and the focus on active transportation is reflected in the growth-related capital program established for the DCL Update.

B. CAPITAL PROGRAM

The total gross 2023-2032 Transportation DCL capital program amounts to \$1.52 billion. The program has a specific focus on achieving active transportation needs and goals while continuing to invest in core traditional road-related infrastructure. Table 1 provides an overview of the growth-related transportation capital program. The program includes:

- \$883.89 million in costs related to road infrastructure such as bridges and structures, pavement and sidewalks, and traffic signals and street lights;
- \$541.56 million in transit and active transportation capacity improvements including bus network upgrades and rapid transit-related projects, 80km of bikeways, complete streets projects, and safety and accessibility improvements;
- \$62.50 million in public gathering and placemaking improvements (e.g. plazas and community hubs) and commercial high street corridor improvements; and
- \$27.40 million allocated to additional emerging priorities to respond to growth and development pressures as they occur.

\$362.85 million of the capital costs are anticipated to be funded through senior government or partner contributions. Another \$699.64 million is deemed to benefit existing development, the majority of which is related to the roads and bridges infrastructure. As such, much of remaining net growth-related costs (\$452.87 million) related to active transportation and transit-related projects.

CACs and density bonusing are anticipated to cover \$30.00 million of the growth-related costs. Another \$18.83 million will be funded through development conditions as well as the available DCL reserve balance. The 1% municipal assist factor, \$4.19 million, will be funded through other City sources such as property taxes. After these deductions, \$399.86 in growth-related costs are brought forward for DCL recovery over the 2023-2032 period.

Transportation Services	Total Gross Cost	Senior Gov. / Partners	Benefit to Existing	Net Growth-Related Costs	CAC / Density Bonusing	Other City Funding Sources	Municipal Assist	DCL Rate Funded 2023-2032
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
Building a Resilient Network								
Bridges & Structures (Excl. Seawall Structures)	\$351,000	\$77,000	\$249,000	\$25,000	\$0	\$0	\$250	\$24,750
Granville Bridge rehab & seismic upgrade	\$149,000	\$38,000	\$109,000	\$2,000	\$0	\$0	\$20	\$1,980
Cambie Bridge rehab & seismic upgrade	\$98,000	\$35,000	\$40,000	\$23,000	\$0	\$0	\$230	\$22,770
Retaining walls, slopes, other structures	\$104,000	\$4,000	\$100,000	\$0	\$0	\$0	\$0	\$0
Pavement & Sidewalks	\$218,000	\$50,000	\$168,000	\$0	\$0	\$0	\$0	\$0
Traffic Signals & Street Lights	\$314,890	\$1,500	\$262,200	\$51,190	\$0	\$3,150	\$480	\$47,560
Signals and signal communication	\$106,300	\$0	\$75,200	\$31,100	\$0	\$3,150	\$280	\$27,670
Street signs and road markings	\$24,000	\$0	\$24,000	\$0	\$0	\$0	\$0	\$0
Street lighting & infrastructure	\$184,590	\$1,500	\$163,000	\$20,090	\$0	\$0	\$200	\$19,890
Subtotal Building a Resilient Network	\$883,890	\$128,500	\$679,200	\$76,190	\$0	\$3,150	\$730	\$72,310
Improving Mobility								
Transit Integration & Reliability	\$84,010	\$53,600	\$3,800	\$26,610	\$0	\$0	\$266	\$26,344
Bus stop upgrades and improvements	\$46,000	\$36,000	\$3,800	\$6,200	\$0	\$0	\$62	\$6,138
RapidBus expansion and bus-priority upgrades	\$15,010	\$12,000	\$0	\$3,010	\$0	\$0	\$30	\$2,980
Rapid transit planning & implementation	\$23,000	\$5,600	\$0	\$17,400	\$0	\$0	\$174	\$17,226
Active Transportation & Complete Streets	\$365,280	\$176,500	\$0	\$188,780	\$25,000	\$0	\$1,638	\$162,142
Active transportation & complete streets (including up to 80km of AAA bikeways such as Arbutus Greenway, West End, Cambie Corridor)	\$180,280	\$37,000	\$0	\$143,280	\$25,000	\$0	\$1,183	\$117,097
Prior St underpass	\$145,000	\$139,500	\$0	\$5,500	\$0	\$0	\$55	\$5,445
Transportation planning & monitoring	\$40,000	\$0	\$0	\$40,000	\$0	\$0	\$400	\$39,600

Transportation Services	Total Gross Cost	Senior Gov. / Partners	Benefit to Existing	Net Growth-Related Costs	CAC / Density Bonusing	Other City Funding Sources	Municipal Assist	DCL Rate Funded 2023-2032
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
Transportation Safety & Accessibility	\$92,270	\$4,250	\$16,635	\$71,385	\$0	\$370	\$710	\$70,305
Waterway safety infrastructure	\$7,820	\$0	\$7,820	\$0	\$0	\$0	\$0	\$0
Transportation safety/construction management	\$30,100	\$0	\$0	\$30,100	\$0	\$230	\$299	\$29,571
School programs	\$21,070	\$0	\$0	\$21,070	\$0	\$140	\$209	\$20,721
At grade rail crossings	\$10,030	\$0	\$5,015	\$5,015	\$0	\$0	\$50	\$4,965
Curb ramp program	\$12,000	\$3,000	\$1,800	\$7,200	\$0	\$0	\$80	\$7,120
Neighbourhood traffic management/spot improvements	\$11,250	\$1,250	\$2,000	\$8,000	\$0	\$0	\$72	\$7,928
Subtotal Improving Mobility	\$541,560	\$234,350	\$20,435	\$286,775	\$25,000	\$370	\$2,614	\$258,791
Supporting Public Life								
Public Gathering & Placemaking 12+ plazas & community hubs 20+ upgrades	\$39,375	\$0	\$0	\$39,375	\$0	\$0	\$394	\$38,981
Commercial High Street Corridors Including Gastown	\$23,130	\$0	\$0	\$23,130	\$5,000	\$0	\$181	\$17,949
Subtotal Supporting Public Life	\$62,505	\$0	\$0	\$62,505	\$5,000	\$0	\$575	\$56,930
Emerging Priorities	\$27,404	\$0	\$0	\$27,404	\$0	\$0	\$274	\$27,130
Available DCL Reserves	\$0	\$0	\$0	\$0	\$0	\$15,306	\$0	-\$15,306
Total Transportation Services	\$1,515,359	\$362,850	\$699,635	\$452,874	\$30,000	\$18,826	\$4,194	\$399,855

APPENDIX F

UTILITIES DCL CAPITAL PROGRAM

UTILITIES DCL CAPITAL PROGRAM

A. ESTABLISHING THE DEMAND FOR SERVICE

Development activity, including redevelopment and intensification, places increased demand on the City's utilities infrastructure. The City's water distribution system requires upgrades and expansions to meet the needs of development. The City must maintain adequate pressure in the water distribution system while addressing the increase in water demand and fire flow needs arising from growth. Sewer demand and network capacity is modelled with a particular focus on geographic areas experiencing substantial growth.

B. CAPITAL PROGRAM

i. Water Services

City staff have identified \$38.71 million in gross capital costs related to growth-related Water projects. Most of this (\$37.16 million) is related to water system upgrades in various growing neighbourhoods including the Cambie, Broadway, Grandview-Woodland, and False Creek Flats areas, as well as additional locations throughout the city. Growth-related hydraulic modelling costs amount to a total of \$390,000. An additional \$1.17 million has been earmarked for emerging priorities to associate with growth as it occurs over the next ten years.

No senior government or partner shares have been identified. Approximately \$5.93 million in "post-period" shares anticipated to serve development beyond the ten-year planning period has been identified, attributed to the Broadway water upgrades, and removed from the 2023-2032 DCL calculation. Another \$494,000 in non-growth related costs is also deducted, leaving \$32.28 million in net growth-related costs.

Of the 2023-2032 growth-related City costs, \$19.33 million will be funded through development conditions as well as available DCL reserves. The 1% municipal assist factors amounts to \$135,000 and will be funded through other City sources, such as utility rates. This leaves \$12.82 million in DCL rate funded costs over the 2023-2032 period.

Water Services	Total Gross Cost	Senior Gov. / Partners	Post-Period (2033+)	Benefit to Existing	Net Growth-Related Costs	Other City Funding Sources	Municipal Assist	DCL Rate Funded 2023-2032
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
Water System Upgrades	\$37,155	\$0	\$5,932	\$397	\$30,826	\$18,760	\$120	\$11,946
Cambie Water Upgrades	\$9,740	\$0	\$0	\$0	\$9,740	\$3,360	\$64	\$6,316
Broadway Water Upgrades	\$7,933	\$0	\$5,932	\$0	\$2,001	\$0	\$20	\$1,981
Grandview-Woodland Water Upgrades	\$1,838	\$0	\$0	\$0	\$1,838	\$0	\$18	\$1,820
False Creek Flats Water Upgrades	\$5,332	\$0	\$0	\$0	\$5,332	\$5,000	\$3	\$329
City-wide Water Upgrades	\$12,312	\$0	\$0	\$397	\$11,915	\$10,400	\$15	\$1,500
Hydraulic Model	\$390	\$0	\$0	\$98	\$293	\$0	\$3	\$290
Emerging Priorities	\$1,166	\$0	\$0	\$0	\$1,166	\$0	\$12	\$1,154
Available DCL Reserves	\$0	\$0	\$0	\$0	\$0	\$573	\$0	-\$573
Total Water Services	\$38,711	\$0	\$5,932	\$494	\$32,285	\$19,333	\$135	\$12,817

ii. Sanitary and Drainage

The City has a significant Sanitary and Drainage growth-related capital program, totaling \$2.06 billion in gross costs. Projects in the Sanitary and Drainage capital program include extensive sewer and green infrastructure upgrades serving the Cambie (\$223.51 million) and Broadway (\$267.12 million) areas, as well as other growing areas throughout the city (\$1.30 billion). The program also includes \$67.12 million in pump stations, \$75.45 million in hydraulic modelling and monitoring initiatives, \$79.30 million in planning and other study costs, and \$50.62 million to address other emerging priorities.

\$18.5 million in senior government or partner shares has been identified and removed from the DCL calculation. A significant share of the program, \$605.01 million, has been identified as “post-period”, or related to growth that is anticipated to occur beyond the 2023-2032 planning period. This amount is also removed from the 2023-2032 DCL rate calculations, but may be considered as part of future DCL updates. Another significant share of \$737.45 million has been deemed as benefit to existing or replacement costs, leaving \$698.89 million in net growth-related costs for the ten-year planning period.

Development conditions and available DCL reserves will fund \$55.25 million of the net growth-related costs. Finally, the municipal assist share amounting to \$6.69 million must be funded through other City sources, such as utility rates. The remaining amount eligible for funding through DCLs collected over the 2023-2032 period is \$636.95 million.

The City has prepared a more detailed Utilities DCL Capital Project List (2023-2032) which is included as part of the 2022 DCL update under separate cover.

Sanitary & Drainage	Total Gross Cost	Senior Gov. / Partners	Post-Period (2033+)	Benefit to Existing	Net Growth-Related Costs	Other City Funding Sources	Municipal Assist	DCL Rate Funded 2023-2032
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
Cambie Projects (Sanitary & Drainage Upgrades)	\$223,511	\$2,000	\$80,000	\$7,274	\$134,236	\$12,940	\$1,213	\$120,084
Broadway Projects (Sanitary & Drainage Upgrades)	\$267,130	\$2,100	\$140,370	\$15,790	\$108,870	\$0	\$1,089	\$107,781
City Wide Projects (Sanitary & Drainage Upgrades)	\$1,296,709	\$14,400	\$384,640	\$638,026	\$259,644	\$16,695	\$2,429	\$240,519
Pump Stations	\$67,125	\$0	\$0	\$36,000	\$31,125	\$0	\$311	\$30,814
Hydraulic Model & Monitoring	\$75,450	\$0	\$0	\$35,500	\$39,950	\$0	\$400	\$39,551
Planning & Other Studies	\$79,300	\$0	\$0	\$4,860	\$74,440	\$0	\$744	\$73,696
Emerging Priorities	\$50,624	\$0	\$0	\$0	\$50,624	\$0	\$506	\$50,118
Available DCL Reserves	\$0	\$0	\$0	\$0	\$0	\$25,616	\$0	-\$25,616
Total Sanitary & Drainage	\$2,059,850	\$18,500	\$605,010	\$737,450	\$698,889	\$55,251	\$6,693	\$636,946