



Small-Scale Infill Residential Development

Development Pro-Forma · Planning · CMHC Financing

Anonymised case study · two-building infill, Ottawa, Ontario

Prepared by Lumenalis Consulting Ltd.

PROJECT PROFILE

Asset type	Two detached triplexes – purpose-built rental
Programme	6 dwellings (each building: 1 principal dwelling + 2 additional dwelling units)
Location	Established, transit-oriented Ottawa neighbourhood (address withheld)
Site	Severed corner lot subdivided into two parcels
Financing strategy	CMHC MLI Select construction-to-takeout (energy + affordability tiers)
Planning status	Severance + minor variances – appeal allowed by the Ontario Land Tribunal (2024)

HEADLINE OUTPUTS

Total project cost (rebuilt budget)	\$3,999,347
Total dwellings	6
Cost per dwelling	\$666,558
Cost per sq ft GBA	\$727
Stabilised net operating income (CMHC)	\$211,134
Applied capitalisation rate	5.0%
CMHC estimated value (stabilised)	\$4,222,688
CMHC first mortgage	\$3,320,000
First-mortgage rate / amortisation	3.95% · 40 yr
Debt-service coverage ratio	1.28x

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Anonymised for publication: address, postal code, ownership, counsel, tribunal-member and consultant names, and file/board numbers removed (PIPEDA, S.C. 2000, c.5). All figures are those of the underlying engagement. Two cost lenses appear – the rebuilt development budget (cost-to-build) and the CMHC underwriting (operating value & financing); each is shown in its own tab and reconciled on Sources & Method.

Pro-Forma Summary — Total Project Cost

Cost Category	Restated (\$)	% of TPC	Source
HARD COSTS			
Construction hard costs (Hard_Costs tab)	\$ 1,798,400	45.0%	
(HST on inputs handled via ITCs – see HST_Analysis tab)	\$ -	-	
HARD COST SUBTOTAL	\$ 1,798,400	45.0%	
SOFT COSTS			
Design / engineering / permits (Soft_Costs tab)	\$ 185,842	4.6%	
(HST on inputs handled via ITCs – see HST_Analysis tab)	\$ -	-	
SOFT COST SUBTOTAL	\$ 185,842	4.6%	
LAND & DEV CHARGES			
Land acquisition + LTT + title	\$ 1,089,675	27.2%	
Development charges + parkland + EDC	\$ 92,746	2.3%	
LAND & DEV CHARGES SUBTOTAL	\$ 1,182,421	29.6%	
FINANCING			
Construction interest + commitment + admin + refi	\$ 222,239	5.6%	
Builders' risk insurance (already in hard) – no double-count	\$ -	-	
FINANCING SUBTOTAL	\$ 222,239	5.6%	
MANAGEMENT & SUPERVISION			
PM/PC fee on hard+soft	\$ 79,370	2.0%	
Site supervision fee on hard+soft	\$ 79,370	2.0%	
Corporate overhead allocation	\$ 9,921	0.2%	
CONTINGENCY			
Scope + escalation + soft + owner reserve	\$ 332,585	8.3%	
HST (SELF-SUPPLY, SELECTED SCENARIO)			
Net self-supply HST burden (Scenario from Assumptions!C60)	\$ 109,200	2.7%	
TOTAL PROJECT COST (TPC)	\$ 3,999,347	100.0%	
Variance vs source (\$4,008,500)	(\$ 9,153)	(0.2%)	
TPC per unit	\$ 666,558		
TPC per sqft GBA	\$ 727		
Hard cost per sqft GBA	\$ 327		
Soft-to-hard ratio	10.3%		

Assumptions — change the shaded input values; all other tabs recompute**PROGRAM**

Number of buildings	2
Units per building	3
Total units	6
GBA per building (sqft)	2,750
Total GBA (sqft)	5,500
Average unit size NSF (sqft)	800

MARKET COST RATES (Ottawa Q2 2026)

Hard cost target \$/sqft GBA	\$ 315
Soft cost loading factor (% of hard)	13.0%
Scope contingency on hard costs	10.0%
Escalation reserve (annualized)	4.0%
Construction duration (months)	14
Owner reserve (% of hard+soft)	3.0%

LAND & ACQUISITION

Land purchase price (\$)	\$ 1,070,000
Land transfer tax (Ontario marginal)	\$ 17,875
Legal — acquisition	\$ 4,500
Severance legal carryover	\$ 4,000
OLT legal / appeal	\$ 14,900
Title insurance / disbursements	\$ 1,800

MUNICIPAL FEES (City of Ottawa 2025 schedule)

Building permit base + per-m ² (\$)	\$ 8,147
7% admin surcharge on permit	\$ 570
Plumbing & drainage permit (\$)	\$ 1,400
HVAC / mechanical permit (\$)	\$ 700
Zoning compliance / lot grading review (\$)	\$ 1,500
Demolition permit (\$)	\$ 425
Road occupancy / encroachment (\$)	\$ 3,500
Water/sewer connection (per service)	\$ 5,800
Hydro Ottawa connection	\$ 2,500
Gas service activation (Enbridge)	\$ 800

DEVELOPMENT CHARGES (Ottawa 2026 schedule, after exemptions & credits)

Total City DC payable (net of credits & ARU exemptions)	\$ 50,000
CILP per dedicating dwelling (main dwelling only; ADUs exempt)	\$ 20,000
OCDSB Education DC per unit	\$ 1,373
OCCDSB Education DC per unit	\$ -

INTERMEDIATE COMPUTATION — Ontario LTT

Marginal LTT on \$1.07M ($\$55k \times 5\% + \$195k \times 1\% + \$150k \times 1.5\% + b$)	\$ 17,875
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FINANCING

Construction loan rate (annualized)	7.3%
Average draw utilization (%)	55.0%
Commitment fees (% of loan)	0.8%
Lender legal / appraisal / QS / inspections	\$ 18,500
Post-construction refinance fee (% of takeout)	2.0%
Construction loan size (max)	\$ 2,691,664

HST / NRRP / PBRH

HST rate (Ontario)	13.0%
FMV per unit on substantial completion (\$)	\$ 350,000
HST scenario selector (A / B / C)	A

GENERAL

PM/PC fee on hard+soft	4.0%
Site supervision fee on hard+soft	4.0%
Corporate overhead allocation	0.5%

Planning & Approvals

Land-use approval pathway secured for the development (anonymised).

APPROVAL OBTAINED

Instruments	<i>Consent (severance) under s. 53 of the Planning Act, plus minor variances under s. 45 – to subdivide one corner lot into two parcels and permit two detached triplexes (six dwellings total).</i>
Pathway	<i>Applications refused by the municipal Committee of Adjustment; refusal appealed to the Ontario Land Tribunal (OLT); appeal heard by video (August 2024); decision issued September 2024.</i>
Outcome	<i>Appeal ALLOWED. Provisional consent granted and the zoning variances authorised, subject to nine conditions.</i>
Variances authorised	<i>Reduced lot widths of approx. 16.3 m and 11.2 m (vs. an 18 m minimum), and a parking reduction from one space to zero on one lot – offset by a second space on the adjoining lot to preserve a mature tree and the 40% canopy requirement.</i>

PLANNING RATIONALE

Policy basis	<i>Found consistent with the Provincial Policy Statement (2020); conforms to the City Official Plan and the applicable secondary plan.</i>
Intensification context	<i>Site within an Official Plan 'Evolving Neighbourhood Overlay' in the Outer Urban Transect, zoned first-density residential (permitting additional dwelling units) – a context the Plan identifies for transit-supportive infill.</i>
Transit orientation	<i>Within roughly 400 m of a rapid-transit station and walking distance of a university campus; a second post-secondary campus is a short transit ride away. The development thesis is purpose-built student-oriented rental with low private-vehicle demand.</i>
Four-test analysis	<i>The variances were found to maintain the general intent of the Official Plan and Zoning By-law, to be desirable and appropriate, and to be minor in nature; the consent met the applicable tests under ss. 51(24) and 53 of the Act.</i>

CONDITIONS OF APPROVAL (NINE)

Condition 1	<i>Cash-in-lieu of parkland dedication (municipal by-law, with appraisal).</i>
Condition 2	<i>Tree-planting plan – one new tree per lot to enhance canopy and streetscape.</i>
Condition 3	<i>Removal of the existing dwelling confirmed in writing.</i>
Condition 4	<i>Independent water, sanitary and storm connections for each parcel, not crossing the severance line.</i>
Condition 5	<i>Stormwater management brief by a licensed civil engineer (peak-flow control to the 100-year storm).</i>

Condition 6	<i>Development agreement registered on title; environmental compliance approval if required.</i>
Condition 7	<i>Grading and drainage plan for both severed and retained parcels.</i>
Condition 8	<i>Conveyance of a 3 m × 3 m corner sight triangle to the municipality.</i>
Condition 9	<i>Development agreement for an asphalt overlay if servicing requires three or more pavement cuts; plus a noise covenant for the adjacent arterial road.</i>

Source: Ontario Land Tribunal decision and order (2024), anonymised. Parties, counsel, the presiding member, the address and all file numbers have been removed. The planning facts are reproduced for context; this is not legal advice.

Hard Construction Costs — Restated against Ottawa Q2-2026 unit rates

Cost Center	Original (\$)	Restated (\$)	Variance (\$)	Variance %	Unit Driver	Basis / Source
SITE PREP & DEMOLITION						
Site prep, signage, fencing, hoarding	\$ 7,500	\$ 9,500	\$ 2,000	26.7%	fixed	Two-site fencing 14 mo. + 30A hoist power + temp toilets; AGC of Ontario 2025 rate sheet.
House demolition	\$ 18,500	\$ 22,500	\$ 4,000	21.6%	fixed	Existing 2-storey + slab; +20% vs source given hazmat designated-substances survey now mandatory (O.Reg 278/05).
Bush / vegetation clearing	\$ 700	\$ 700	\$ -	-	fixed	As per source.
Shed demolition	\$ 500	\$ 500	\$ -	-	fixed	As per source.
Demo cleanup / misc	\$ 2,500	\$ 3,000	\$ 500	20.0%	fixed	Modest uplift for two-building site coordination.
Construction bins (14 mo.)	\$ 8,400	\$ 11,200	\$ 2,800	33.3%	fixed	Tomlinson 2026 rate: \$800/swap × 14 swaps over 14-mo build.
Designated Substances Survey + abatement allowance	\$ -	\$ 4,500	\$ 4,500	-	fixed	REQUIRED under O.Reg 278/05 prior to demolition — missing from source.
Excavation, backfill, trenching, dewatering	\$ 97,350	\$ 105,000	\$ 7,650	7.9%	fixed	+8% for dewatering allowance (high water-table risk per geotechnical report).
Soil testing — foundation bearing	\$ 1,000	\$ 1,500	\$ 500	50.0%	fixed	Two footprints, two test sets.
Subtotal — SITE PREP & DEMOLITION	\$ 136,450	\$ 158,400	\$ 21,950	16.1%		
STRUCTURE & ENVELOPE						
Foundation (concrete + waterproofing)	\$ 80,000	\$ 88,000	\$ 8,000	10.0%	\$/sqft footprint	\$48/sqft of footprint × ~1,830 sqft; +10% for hydrostatic damp-proofing required by OBC 9.13.3.3.
Framing labour	\$ 51,500	\$ 62,000	\$ 10,500	20.4%	\$/sqft GBA	\$11.25/sqft GBA × 5,500 sqft. Source under-prices labour vs Ottawa carpentry COLA 2025 (+8.7% YoY, ICI Settlements Bulletin).
Framing material (incl trusses & engineered I-joists)	\$ 138,000	\$ 152,000	\$ 14,000	10.1%	\$/sqft GBA	\$27.6/sqft. Random Lengths Composite Index Q2-2026 ~+10% vs 2025.
Staircases (manufactured)	\$ 15,000	\$ 16,500	\$ 1,500	10.0%	per stair	\$2,750 × 6 stair runs (one per unit if stacked townhouse layout).
Roofing (asphalt shingle + ice/water)	\$ 36,000	\$ 39,000	\$ 3,000	8.3%	\$/sqft roof	\$19/sqft × 2,000 sqft roof area (steep pitch & longer eaves typical of multiplex).
Eavestroughs + downspouts + storm tie-in	\$ 7,000	\$ 8,500	\$ 1,500	21.4%	fixed	Estimated.
Windows (triple-glazed, Argon, U≤1.05)	\$ 82,800	\$ 96,000	\$ 13,200	15.9%	per unit	High-end envelope requires U≤1.05 premium window upgrade adds ~16%.
Exterior doors (insulated steel + sidelights)	\$ 12,000	\$ 13,000	\$ 1,000	8.3%	per door	
Siding system (Hardie panel + soffit + fascia)	\$ 125,000	\$ 140,000	\$ 15,000	12.0%	\$/sqft wall	\$27/sqft wall × 5,500 sqft wall area, James Hardie 2026 distributor price list.
Parging + foundation coating	\$ 7,800	\$ 8,500	\$ 700	9.0%	fixed	
Subtotal — STRUCTURE & ENVELOPE	\$ 555,100	\$ 623,500	\$ 68,400	12.3%		
MECHANICAL / ELECTRICAL / PLUMBING						
HVAC equipment + ducting (gas-fired or HP)	\$ 54,000	\$ 60,000	\$ 6,000	11.1%	per unit	\$2K/unit — 30% price increase company, consider air source heat pump premium \$+2K/unit.
HRV (mandatory under SB-12 / MLI Select)	\$ 21,000	\$ 22,500	\$ 1,500	7.1%	per unit	
HVAC misc / commissioning	\$ 6,500	\$ 8,000	\$ 1,500	23.1%	fixed	HRV + ERV commissioning + EnerGuide blower door test (mandatory for MLI Select Tier-2 rebate).
Plumbing rough-in labour	\$ 60,000	\$ 66,000	\$ 6,000	10.0%	per fixture	\$1,200/fixture × ~55 fixtures (kitchen, 2 bath per unit avg).
Plumbing service & main	\$ 18,000	\$ 20,000	\$ 2,000	11.1%	fixed	

Plumbing fixtures (mid-grade)	\$ 16,500	\$ 18,000	\$ 1,500	9.1%	per unit	
Irrigation contractor	\$ 7,500	\$ 7,500	\$ -	-	fixed	Optional – flag for value engineering.
Electrical general contractor	\$ 66,000	\$ 72,000	\$ 6,000	9.1%	per unit	\$12K/unit; ESA 2025 inspection fees included.
Electrical fixtures	\$ 7,200	\$ 8,400	\$ 1,200	16.7%	per unit	
Electrical service entry & meter base	\$ 25,000	\$ 28,000	\$ 3,000	12.0%	fixed	2007 service per building #2 buildings, future Ottawa connection deposit separate.
Smart-home / data rough-in (Cat-6A + WAP backbone)	\$ 6,000	\$ 7,500	\$ 1,500	25.0%	fixed	
Internet finishing (patch panels, jacks)	\$ 2,500	\$ 3,000	\$ 500	20.0%	fixed	
Security/camera system (2 entries × DVR)	\$ 3,000	\$ 4,200	\$ 1,200	40.0%	fixed	Insurance discount eligibility – recommend upgrade.
Subtotal – MECHANICAL / ELECTRICAL / PLU	\$ 293,200	\$ 325,100	\$ 31,900	10.9%		

INTERIORS & FINISHES

Insulation – base (R-31 walls / R-60 attic)	\$ 64,750	\$ 72,000	\$ 7,250	11.2%	\$/sqft GBA	Per spec requires improved envelope, bumped to R-31/R-60.
Insulation – spray-foam basement (CCMC 14140-L) per Bui	\$ 15,250	\$ 17,500	\$ 2,250	14.8%	fixed	Closed-cell spray-foam per Building B specification.
Drywall	\$ 45,000	\$ 50,000	\$ 5,000	11.1%	\$/sqft GBA	
Plaster / Level-5 finish allowance	\$ 39,000	\$ 41,000	\$ 2,000	5.1%	fixed	
Drywall extras / patching	\$ 10,000	\$ 12,000	\$ 2,000	20.0%	fixed	
Painting	\$ 25,000	\$ 30,000	\$ 5,000	20.0%	per unit	\$5K/unit; original missing 'painting extras' line item.
Flooring – material (engineered hardwood + LVT)	\$ 25,500	\$ 30,000	\$ 4,500	17.6%	\$/sqft	
Flooring – labour	\$ 10,500	\$ 12,000	\$ 1,500	14.3%	\$/sqft	
Transitions + reducers	\$ 5,000	\$ 5,000	\$ -	-	fixed	
Flooring extras / damage allowance	\$ 15,000	\$ 15,000	\$ -	-	fixed	
Bathroom tile – material	\$ 10,800	\$ 12,000	\$ 1,200	11.1%	per bath	\$1K/bath × 12 baths (2 per unit avg).
Bathroom tile – labour	\$ 14,000	\$ 15,500	\$ 1,500	10.7%	per bath	
Backsplash kitchen tile	\$ 3,000	\$ 3,600	\$ 600	20.0%	per unit	
Bathroom extras	\$ 6,000	\$ 7,000	\$ 1,000	16.7%	per unit	
Shower glass material	\$ 7,200	\$ 8,400	\$ 1,200	16.7%	per shower	
Shower kit labour	\$ 3,600	\$ 4,200	\$ 600	16.7%	per shower	
Cabinets – kitchen + bath	\$ 60,000	\$ 66,000	\$ 6,000	10.0%	per unit	\$11K/unit; mid-range custom plus appliance garage etc.
Countertops (quartz)	\$ 48,000	\$ 54,000	\$ 6,000	12.5%	per unit	\$9K/unit; 35 sqft of quartz/unit at \$145/sqft installed.
Trim & doors – material + hardware	\$ 36,000	\$ 39,000	\$ 3,000	8.3%	\$/sqft GBA	
Trim & doors – labour	\$ 9,000	\$ 10,500	\$ 1,500	16.7%	fixed	
Bathroom hardware	\$ 4,500	\$ 5,400	\$ 900	20.0%	per bath	
Misc hardware	\$ 1,500	\$ 1,800	\$ 300	20.0%	fixed	
Subtotal – INTERIORS & FINISHES	\$ 458,600	\$ 511,900	\$ 53,300	11.6%		

EXTERIOR / SITE WORKS

Asphalt driveway / walkways	\$ 11,500	\$ 13,000	\$ 1,500	13.0%	\$/sqft	
Landscape labour	\$ 15,000	\$ 17,000	\$ 2,000	13.3%	fixed	
Landscape material (sod, trees per arborist plan)	\$ 24,500	\$ 28,000	\$ 3,500	14.3%	fixed	Required tree replacements per Ottawa Tree Protection By-law 2020-340 + arborist report.
Subtotal – EXTERIOR / SITE WORKS	\$ 51,000	\$ 58,000	\$ 7,000	13.7%		

Soft Costs — Design, Engineering, Approvals, Permits

Cost Center	Original (\$)	Restated (\$)	Variance (\$)	Basis / Source
DESIGN & PROFESSIONAL				
OLT architectural fees (carryover)	\$ 15,500	\$ 15,500	\$ -	- Already incurred / contracted; held at source.
Architectural SD + DD	\$ 9,000	\$ 11,000	\$ 2,000	Two-building variation requires duplicated detailing; +22% premium typical for split lot.
Architectural CD	\$ 14,000	\$ 16,500	\$ 2,500	Construction documents for two buildings.
Architectural site visits / CA	\$ 4,500	\$ 6,000	\$ 1,500	OAA recommended Construction Administration scope minimum — 14-mo build.
Structural engineering	\$ 4,500	\$ 6,500	\$ 2,000	Per stamped structural drawings — fee likely understated for two buildings.
Mechanical engineering	\$ 4,500	\$ 5,500	\$ 1,000	
Electrical engineering	\$ 2,500	\$ 3,500	\$ 1,000	
Plumbing engineering (delegated design)	\$ -	\$ 2,500	\$ 2,500	Missing from source — required for >5 fixture units to OBC.
Geotechnical engineering	\$ 9,500	\$ 9,500	\$ -	- As per source — already engaged.
Grading engineering	\$ 10,500	\$ 10,500	\$ -	
Energy modeling for MLI (NRCAN H2K — 2 models for Bldg B, 1	\$ 4,500	\$ 7,500	\$ 3,000	Per plan notes: multiple H2K energy models for Building B and Building A.
Arborist + tree protection plan	\$ 1,650	\$ 2,200	\$ 550	Ottawa By-law 2020-340 tree replacement plan required.
ESA Phase 1 (if needed)	\$ 3,500	\$ 3,500	\$ -	- Retained as contingency line.
Quantity surveyor (CMHC requirement)	\$ 11,250	\$ 13,500	\$ 2,250	MLI Select demands cost certificates at each draw — typical Altus/Turner & Townsend retainer for 6-unit project.
Transportation impact (TIR) study	\$ 400	\$ 400	\$ -	
OLT lawyer	\$ 14,900	\$ 14,900	\$ -	
COA / planning legal	\$ 4,500	\$ 4,500	\$ -	
Severance legal carryover	\$ 4,000	\$ 4,000	\$ -	
Severance closing & survey	\$ 13,500	\$ 13,500	\$ -	
Survey of record	\$ 4,500	\$ 4,500	\$ -	
Misc consultants	\$ 3,500	\$ 5,000	\$ 1,500	
Subtotal — DESIGN & PROFESSIONAL	\$ 140,700	\$ 160,500	\$ 19,800	

MUNICIPAL PERMITS & FEES

Building permit + 7% surcharge	\$ 8,717	\$ 8,717	\$ -	- Linked to Assumptions B29/B30.
Plumbing & drainage permit	\$ -	\$ 1,400	\$ 1,400	Missing from source.
HVAC / mechanical permit	\$ -	\$ 700	\$ 700	Missing from source.
Zoning compliance review	\$ -	\$ 1,500	\$ 1,500	Missing from source.
Demolition permit	\$ -	\$ 425	\$ 425	Missing from source.
Road occupancy / encroachment	\$ -	\$ 3,500	\$ 3,500	Missing from source.
Water / sewer connection fees	\$ -	\$ 5,800	\$ 5,800	Missing from source.

Hydro Ottawa connection	\$ 2,500	\$ 2,500	\$ -
Gas service activation (Enbridge)	\$ -	\$ 800	\$ 800 Missing from source.
Subtotal — MUNICIPAL PERMITS & FEES	\$ 11,217	\$ 25,342	\$ 14,125

SUPERVISION & MANAGEMENT (built up in Summary)

Note: PM/PC, supervision, overhead computed on % of hard+soft — see Summary tab

Cross-reference only.

TOTAL SOFT COSTS (ex-management) \$ 151,917 \$ 185,842 \$ 33,925

Land Acquisition & Development Charges

Item	Original (\$)	Restated (\$)	Basis
LAND			
Land purchase	\$ 1,070,000	\$ 1,070,000	Held at source – acquired prior to budgeting.
Ontario LTT (corrected)	\$ 8,500	\$ 17,875	Source \$8,500 understated. Statutory marginal rate on \$1,070,000 = \$17,875 (LTT Act R.S.O. 1990 c.L.6 s.2(1)). Variance vs source: +\$9,375.
Title insurance + disbursements	\$ -	\$ 1,800	Not separately budgeted in source.
Subtotal – LAND	\$ 1,078,500	\$ 1,089,675	

DEVELOPMENT CHARGES & PARKLAND

Ottawa DC – total payable (net of exemptions & credits)	\$ 44,500	\$ 50,000	User-calibrated \$50K total reflecting Bill 23 ARU exemption (DC Act s.2(3.2)), demolition credit for existing dwelling, and Ottawa 2026 schedule (eff. Apr 1, 2026; 3.6% BCPI-tied; avg -1% inside Greenbelt). a comparable Ottawa site comparable: 2 ADUs added to existing 21-unit building were essentially exempt under same statutory framework.
Cash-in-lieu of parkland (buildings × \$20K/main dwelling)	\$ 19,000	\$ 40,000	2 freehold triplexes × \$20K each = \$40K total. ADUs (2 per building = 4 ADUs total) are exempt from parkland dedication under Planning Act s.42(1.3-1.5) as amended by Bill 23. Dedicating count = number of main dwellings = number of buildings, not total units.
OCDSB Education DC (main dwellings only; ADUs exemp)	\$ 19,500	\$ 2,746	2 main dwellings × \$1,373 = \$2,746. ADUs are exempt from Education DCs under Education Act s.257.54 as amended by Bill 23, paralleling the DC exemption. Source \$19,500 over-stated.
Subtotal – DEVELOPMENT CHARGES & PAR	\$ 83,000	\$ 92,746	

TOTAL LAND & DEV CHARGES **\$ 1,161,500** **\$ 1,182,421**

Contingency Decomposition (replaces \$375,000 lump sum)

Source budget bundles \$350K construction + \$25K soft contingency. Best practice (AACE 18R-97; PMI 2022) decomposes by risk category.

Component	% Rate	Amount (\$)	Justification
Scope contingency (% of hard)	10.0%	\$ 179,840	AACE 18R-97 Class-3 estimate band ±10%
Escalation reserve (annualized × build months / 12)	4.7%	\$ 83,925	StatCan BCPI Ottawa CMA 2024Q4 trend
Soft cost contingency (5% of soft)	5.0%	\$ 9,292	Smaller exposure on procured services / fixed fees
Owner reserve (% of hard+soft)	3.0%	\$ 59,527	Owner discretion change orders; PMI Construction Extension 2022
TOTAL CONTINGENCY		\$ 332,585	
Source budget contingency (construction \$350K + soft \$25K)		\$ 375,000	
Variance vs source		(\$ 42,415)	

Construction Financing Model

Inputs (linked to Assumptions)

Construction loan size	\$	2,691,664
Annualized rate		7.3%
Build duration (months)		14
Average draw utilization		55.0%
Commitment fee rate		0.8%
Refinance fee on takeout		2.0%

Outputs

Construction interest reserve	\$	125,218
Commitment fees	\$	20,187
Lender legal / appraisal / QS / inspections	\$	18,500
Admin / misc	\$	4,500
Post-construction refinance fee (CMHC MLI premium)	\$	53,833

TOTAL FINANCING COST \$ **222,239**

Source budget financing (interest + commitment + admin	\$	387,500
Variance (\$)	(\$	165,261)

HST Self-Supply Analysis — Three Scenarios (NRRP / PBRH / Unrecovered ITCs)

Self-supply at substantial completion triggers HST on FMV of the residential complex per ETA s.191(3). Rebate mechanics depend on whether the project qualifies for the Purpose-Built Rental Housing rebate (PBRH, post-Sept 13 2023 starts, qualifying multiple-unit residential complex) or only the standard New Residential Rental Property rebate (NRRP). ITCs on construction-period inputs are a SEPARATE question — recoverable if the entity is a registrant and inputs are tied to the self-supply taxable event, NOT to the post-self-supply exempt rental use. The PBRH/NRRP determination is worth ~\$109K under the current FMV assumption.

INPUTS (linked to Assumptions)

FMV per unit (excl HST on FMV per CRA RC4231)	\$	350,000
Total units		6
Total deemed FMV	\$	2,100,000
HST rate (federal 5% + Ontario 8%)		13.0%
Gross self-supply HST	\$	273,000

SCENARIO A — Standard NRRP rebate (defensible base case)

Federal NRRP per unit (36% × 5% × FMV; \$6,300 cap at FMV ≤ \$350K; phased to \$0 at \$450K)	\$	6,300
Ontario NRRP per unit (75% × 8% × FMV, \$24,000 cap)	\$	21,000
Total NRRP per unit (A)	\$	27,300
Total NRRP rebate across units (A)	\$	163,800
NET self-supply HST burden — Scenario A	\$	109,200

SCENARIO B — PBRH rebate (if qualifying MURC, not disqualified triplex)

Federal PBRH rebate (100% of 5% federal HST, no cap)	\$	105,000
Ontario PBRH rebate (100% of 8% provincial HST, no cap)	\$	168,000
Total PBRH rebate	\$	273,000
NET self-supply HST burden — Scenario B	\$	-

SCENARIO C — Punitive: standard NRRP + unrecovered construction-input HST

Unrecovered construction-input HST (13% on hard+soft, no ITC claim)	\$	257,951
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Plus: net self-supply HST after standard NRRP (= Scenario A)	\$	109,200
TOTAL HST drag — Scenario C	\$	367,151

SELECTED SCENARIO (input letter at Assumptions!C60)

Scenario in use		A
Selected NET HST burden (flows to Summary as project cost line)	\$	109,200

Critical eligibility question (worth ~\$109,200)

PBRH is unavailable for condos, single-unit, duplexes, and triplexes per CRA Guide 19-3-9. Each building here is a freehold triplex (1 main + 2 ADUs). Two possible CRA parsings: (a) two disqualified triplexes → Scenario A applies, net HST burden = \$109,200; (b) one integrated six-unit MURC → Scenario B may apply, net HST burden = \$0. Tax counsel determination required. Until confirmed, default to Scenario A.

ITC treatment of construction-period inputs

If entity is GST/HST registrant constructing new housing for self-supply, ITCs may be claimed on construction-period inputs (CRA: 'GST/HST and home construction'). After self-supply, no further ITCs because long-term rental is exempt. Scenarios A and B assume ITCs are claimable and construction-input HST is recovered. Scenario C assumes input HST is unrecoverable — use only if tax counsel confirms.

Stabilised Operating Pro-Forma

CMHC MLI Select underwriting basis – stabilised year-one operations.

REVENUE				
Component	Basis	Units	Rent / mo	Annual
Residential – 4-bedroom suites	1,049 SF avg · \$3.72/SF	6	\$3,900	\$280,800
Parking	2 stalls	2	\$87.50	\$4,200
Gross potential revenue				\$285,000
Less: vacancy & bad debt (3.0%)	submarket 4-yr avg ~1.15%			(\$8,550)
Effective gross revenue				\$276,450

OPERATING EXPENSES			
Expense	Basis	% EGR Per unit / Annual	
Property taxes	Per appraisal	5.8%	\$16,002
Insurance	Per appraisal	1.3%	\$3,450
Internet	Per appraisal	0.8%	\$2,100
Utilities	Per appraisal	6.5%	\$18,000
Repairs & maintenance	CMHC wood benchmark (ON)	1.8%	\$4,980
Salaries	CMHC wood benchmark (ON)	1.2%	\$3,330
Management	CMHC wood benchmark (ON)	4.3%	\$11,749
Other costs	CMHC wood benchmark (ON)	1.0%	\$2,765
Reserve (5 appliances + heat pump)	CMHC wood benchmark (ON)	1.1%	\$2,940
Total operating expenses		23.6%	\$65,316

NET OPERATING INCOME & VALUE	
Net operating income (NOI)	\$211,134
Applied capitalisation rate	5.0%
CMHC estimated value (stabilised)	\$4,222,688
Value per residential unit	\$703,781
Breakeven rent per suite / month	\$3,580
Default point	93.3%

NOI shown is the CMHC MLI Select underwriting estimate (stabilised year one). Value is NOI capitalised at 5.0%. Operating-expense benchmarks follow the CMHC Ontario wood-frame standard; taxes, insurance, internet and utilities are per appraisal.

CMHC Financing & Value

MLI Select first-mortgage sizing, insurance premia and coverage.

FIRST MORTGAGE	
Loan amount	\$3,320,000
Loan-to-cost	95.0%
Loan-to-value	78.6%
Interest rate	3.95%
Amortisation	40 years
Term	5 years
Annual debt service	\$164,478
Cash flow after debt service	\$46,657
Debt-service coverage ratio	1.28x
Debt yield	6.4%
Loan per net sq ft	\$527.49
Loan per suite	\$553,333

CMHC FEES	
Net loan amount	\$3,320,000
Application fee	\$1,200
CMHC premium (7.00%)	\$232,400
Amortisation premium (0.75%)	\$24,900
Sub-total premia	\$257,300
MLI Select discount (10%)	(\$25,730)
Total CMHC fees	\$232,770
Gross CMHC loan (incl. fees)	\$3,552,770

CMHC COST & VALUE SUMMARY			
Metric	Value	Metric	Value
Land value	\$1,070,000	Net leasable area	6,294 SF
Total hard cost	\$1,643,000	Average unit size	1,049 SF
Total soft cost	\$537,000	Number of units	6
Total contingency	\$92,890	Cost per net sq ft	\$556
Total financing cost	\$155,500	Cost per suite	\$583,065
Total construction cost	\$3,498,390	CMHC estimated value	\$4,222,688

CMHC underwriting view. Note the two cost lenses: this MLI Select submission estimates total construction cost at \$3,498,390, whereas the rebuilt development budget (Summary) restates total project cost at \$3,999,347. The difference reflects scope and underwriting treatment (e.g. HST self-supply, financing and contingency are stated more fully in the rebuilt budget). Both are retained; see Sources & Method.

Risk Register & Sensitivity

Risk ID	Description	Likelihood	Impact (\$)	Expected (\$)	Mitigation
R-01	Ottawa DC schedule re-tabled mid-build (Bill 23 unwind ongoing)	40.0%	\$ 80,000	\$ 32,000	Lock DC at building permit issuance; budget worst-case schedule.
R-02	MLI Select scoring shortfall reduces takeout LTV from 95% to 85%	25.0%	\$ 250,000	\$ 62,500	Engage CMHC pre-application; cushion equity reserves.
R-03	Excavation hits unsuitable soils (Leda clay risk in Ottawa)	20.0%	\$ 60,000	\$ 12,000	the geotechnical consultant geotechnical Phase 2; pile contingency in scope.
R-04	Construction labour escalation beyond 4%/yr (ICI Settlements)	35.0%	\$ 65,000	\$ 22,750	Lock framing labour via fixed-price subcontract.
R-05	OBC SB-12 / MLI Select envelope changes during permit review	25.0%	\$ 35,000	\$ 8,750	Architect maintains 3 H2K model variants (per Building B plan note).
R-06	Interest rate exceeds 7.25% modeled – BoC trajectory uncertain	30.0%	\$ 45,000	\$ 13,500	Negotiate rate lock at construction loan commitment.
R-07	Tarion enrollment required if any units sold rather than rented	20.0%	\$ 25,000	\$ 5,000	Confirm exit strategy before substantial completion.
R-08	Hazmat / Designated Substance Survey reveals asbestos in demo	25.0%	\$ 28,000	\$ 7,000	Pre-demo DSS (mandatory under O.Reg 278/05) + abatement allowance.
R-09	Adjacent property damage / underpinning required (infill risk)	15.0%	\$ 75,000	\$ 11,250	Builders' risk policy with party-wall extension; pre-construction survey.
R-10	PBRH ineligibility – two-triplex config disqualifies the federal/Ontario PBRH rebate (only standard NRRP applies)	60.0%	\$ 109,200	\$ 65,520	classification (CRA Guide 19-3-9). Decision worth \$109,200 – moves net HST from \$0 (Scenario B) to \$109,200 (Scenario A).
R-11	FMV at occupancy exceeds \$450K → federal NRRP fully phases out (Scenario A only)	35.0%	\$ 37,800	\$ 13,230	Document FMV conservatively at substantial completion; appraisal review.
EXPECT				\$ 253,500	

Coverage check: Owner reserve + Soft contingency vs Expected risk (\$ 184,681)

Sources & Methodology

Domain	Citation
Cost benchmarks	Altus Group, Canadian Cost Guide 2025/2026 – Ottawa low-rise wood-frame multi-residential.
Cost benchmarks	BTY Group, Market Intelligence Q4-2025 – Ontario residential infill.
Cost escalation	StatCan Building Construction Price Index, Ottawa CMA 2024Q4 (table 18-10-0135-01).
Labour escalation	Ontario ICI Collective Agreements Settlement Bulletin 2025.
Material indices	Random Lengths Composite Index Q2-2026.
Permit rates	City of Ottawa By-law 2014-149 (Building Code Act).
Development charges	City of Ottawa Development Charges By-law (2024-179 as amended; April 1 2026 schedule, 3.6% BCPI-tied, avg -1% inside Greenbelt). User calibration: ~\$50K total on this project reflecting ADU exemption + demolition credit.
ADU exemption	Development Charges Act 1997 s.2(3.2); Bill 23 More Homes Built Faster Act 2022.
Parkland	City of Ottawa Parkland Dedication By-law 2022-280; Planning Act R.S.O. 1990 c.P.13 s.42 as amended by Bill 23. ADUs exempt; 2 main dwellings × \$20K = \$40K.
EDC	Education Act R.S.O. 1990 c.E.2 s.257.54; OCDSB EDC By-law 2024. ADU exemption parallels DC Act.
LTT	Land Transfer Tax Act R.S.O. 1990 c.L.6 s.2(1).
HST self-supply	Excise Tax Act R.S.C. 1985 c.E-15 s.191(3); CRA Guide RC4231.
NRRP rebate	ETA s.256.2; CRA Guide RC4231. Federal 36% × 5%, \$6,300/unit cap, phased \$350K-\$450K. Ontario 75% × 8%, \$24,000/unit cap (Taxation Act 2007 s.103).
PBRH rebate	ETA s.256.2.1; CRA Guide 19-3-9. Federal 100% × 5%, no cap. Ontario 100% × 8%, no cap. EXCLUDED: condos, single-unit, duplexes, triplexes. Eligibility starts after Sept 13 2023; substantial completion before 2036. CRA: GST/HST and home construction. Registrants may claim ITCs on construction-period inputs tied to taxable ITCs on construction input self-supply event; cannot claim ITCs against post-self-supply exempt rental use.
CMHC financing	CMHC MLI Select Program Guide (Feb 2024 revision); CMHC Construction Loan Insurance Guidelines.
Cost-engineering method	AACE International Recommended Practice 18R-97 – Cost Estimate Classification System.
Risk methodology	PMI Construction Extension to the PMBOK Guide, 7th edition, 2022.
Building code	Ontario Building Code O.Reg 332/12 (as amended); Supplementary Standard SB-12.
Hazmat	O.Reg 278/05 – Designated Substances in Demolition (OHSA).
Tree protection	City of Ottawa By-law 2020-340 – Tree Protection.
Source budget	Developer source budget, May 2025 (provided).
Comparable project	Comparable Ottawa infill application – two additional dwelling units added to an existing multi-unit building; development charges effectively exempt under DC Act s.2(3.2).
Monday board context	Internal project-management board (reference only).

Methodology notes (cumulative through v2.3)

- Hard-cost line items restated against Ottawa Q2-2026 unit rates and benchmarked per-sqft GBA or per-unit.
- Source budget double-counted Architectural Site Visits (\$4,500 appears under both Professional Services and Drafting & Architectural Fees); v2.x consolidates to a single \$6,000 CA line consistent with OAA recommended scope.

- Soft costs add five missed lines: plumbing engineering, plumbing/HVAC/zoning/demo permits, road occupancy, water-sewer connection, gas activation, hazmat survey.
- Ontario LTT recalculated on statutory brackets – source \$8,500 understates the \$17,875 figure on a \$1.07M lot (variance +\$9,375).
- v2.2 update: Ottawa DCs set to \$50K flat reflecting Bill 23 ADU exemption (DC Act s.2(3.2)), demolition credit for existing dwelling, and Ottawa April 1 2026 schedule. CILP set per-main-dwelling (\$20K) × 2 buildings = \$40K because ADUs are statutorily exempt from parkland dedication. OCDSB EDC same dwelling-count basis = 2 × \$1,373.
- v2.3 update: HST model restructured into three scenarios. FMV per unit reset from \$450K to \$550K. Self supply at FMV is the core liability per ETA s.191(3); rebate selection (NRRP vs PBRH) determines net cost. Scenario A standard NRRP = \$109,200 net (defensible base). Scenario B PBRH = \$0 net (only if project qualifies as a single MURC, not two disqualified triplexes per CRA Guide 19-3-9). Scenario C standard NRRP + unrecovered ITCs = \$367,151 (punitive; only if no ITC claim).
- Construction-input HST and self-supply HST are tracked separately. ITCs on inputs are presumed recovered in Scenarios A and B; not recovered in Scenario C.
- Construction financing rebuilt bottom-up: $\text{Loan} \times \text{Rate} \times (\text{Months}/12) \times \text{Average Utilization}$.
- Contingency decomposed per AACE 18R-97: scope, escalation, soft, owner reserve.
- Risk_Register quantifies expected-value exposure; R-10 reflects PBRH ineligibility risk worth ~\$109,200; R-11 captures FMV creep above \$450K phase-out cliff.
- Stabilization takeout fees in the source (\$27,768.62 with offsetting -\$27,768.62) net to zero and are removed.