



AltusGroup

2023

Canadian Cost Guide



Introduction

Your guide to better understanding Canadian real estate development and infrastructure construction costs

The Canadian construction and development industry hit major turbulence in 2022. The combination of widespread supply chain disruptions, sustained cost escalation, and rapidly rising interest rates strained the budgets of builders, developers, and governments alike.

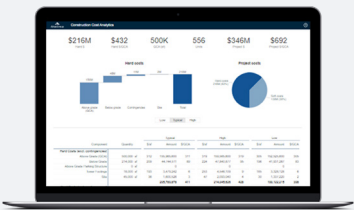
Nevertheless, there is reason for cautious optimism. Underpinned by high immigration, increased immigration targets and a large backlog of projects underway, demand is likely to remain strong in the year ahead, even with a mild recession. In addition, supply chain snarls and inflation appear to be at, or nearing, an inflection point; potentially opening the door to less construction cost volatility in the year ahead.

Even so, let’s not forget the hard-won lessons of the past few years. The best laid plans can be stymied by abrupt reversals in myriad factors - pandemic, geopolitical relations, and run-away inflation to name a few. Take these lessons to heart and ensure your budgets and pro formas are living documents, up-to-date with the latest available information. Having a current and accurate understanding of construction costs is imperative to help manage development risk and navigate turbulent times.

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About the 2023 construction cost data

Construction costs are impacted by global and local economic conditions, market trends, and advances in building materials, practices, and approaches. We have considered all these factors when producing our annual guide, to provide you with a budget range of construction hard costs across all asset classes in the Canadian marketplace.

Our proprietary project cost database includes data from over 900 engagements in 2022 alone.

This guide is designed to be an accessible tool for initial budgeting or to benchmark an estimate, however we strongly advise that you seek independent professional advice to produce a precise estimate and pro forma figures that reflect the specific conditions and details of your unique development and infrastructure undertakings.

Data based on



Residential

\$148
BILLION

2,317
PROJECTS

836M+
SQUARE FEET



ICI

\$90
BILLION

2,362
PROJECTS

410M+
SQUARE FEET



Infrastructure

\$120
BILLION

390
PROJECTS

Total

\$358
BILLION

5,069
PROJECTS

1,246M+
SQUARE FEET

Private sector (cost per square foot)

BUILDING TYPE		Vancouver		Calgary		Edmonton		Winnipeg		GTA		Ottawa/Gatineau		Montreal		Halifax		St. John's	
		Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
RESIDENTIAL	CONDOMINIUMS/APARTMENTS																		
	Up to 12 Storeys	310	to	380	260	to	320	260	to	320	275	to	380	275	to	295	180	to	255
	13-39 Storeys	330	to	400	275	to	325	275	to	320	285	to	370	315	to	345	230	to	265
	40-60 Storeys	340	to	420	280	to	330	280	to	325	320	to	400	320	to	375	240	to	325
	60+ Storeys	365	to	460	n/a	to	n/a	n/a	to	n/a	345	to	450	360	to	425	n/a	to	n/a
	Premium for High Quality	up to		245	up to		240	up to		240	up to		235	up to		245	up to		200
	WOOD FRAMED RESIDENTIAL (DIMENSIONAL LUMBER)																		
	Row Townhouse with Unfinished Basement	180	to	290	160	to	220	160	to	220	160	to	220	200	to	245	130	to	180
	Single Family Residential with Unfinished Basement	185	to	315	150	to	240	150	to	240	145	to	230	205	to	280	140	to	225
	3 Storey Stacked Townhouse	215	to	300	170	to	230	170	to	230	165	to	230	235	to	270	170	to	205
	Up to 6 Storey Wood Framed Condo	245	to	350	195	to	265	195	to	265	190	to	265	240	to	325	180	to	255
	Custom Built Single Family Residential	485	to	1,225	450	to	995	450	to	995	450	to	975	515	to	1,130	500	to	1,055
	SENIORS HOUSING																		
	Independent / Supportive Living Residences	250	to	355	195	to	300	195	to	300	190	to	295	290	to	390	305	to	355
	Assisted Living Residences	275	to	410	230	to	310	230	to	310	225	to	305	310	to	410	330	to	380
	Complex Care Residences	330	to	435	295	to	425	295	to	425	290	to	420	355	to	450	355	to	405
COMMERCIAL	OFFICE BUILDINGS																		
	Under 5 Storeys (Class B)	290	to	375	215	to	295	215	to	295	210	to	290	265	to	360	215	to	280
	5 - 30 Storeys (Class B)	290	to	370	215	to	300	215	to	300	210	to	295	275	to	385	225	to	310
	5 - 30 Storeys (Class A)	295	to	380	245	to	340	245	to	340	240	to	335	310	to	455	265	to	355
	31 - 60 Storeys (Class A)	320	to	450	280	to	390	280	to	390	275	to	385	360	to	515	n/a	to	n/a
	Interior Fitout (Class B)	85	to	150	70	to	110	70	to	110	65	to	105	100	to	150	80	to	125
	Interior Fitout (Class A)	130	to	250	105	to	185	105	to	185	100	to	180	140	to	265	115	to	185
	RETAIL																		
	Strip Plaza	200	to	275	205	to	265	205	to	265	200	to	260	225	to	285	145	to	220
	Supermarket	210	to	265	190	to	230	190	to	230	185	to	225	175	to	260	180	to	255
	Big Box Store	200	to	265	185	to	230	185	to	230	180	to	225	165	to	240	175	to	225
	Enclosed Mall	300	to	405	240	to	365	240	to	365	235	to	360	275	to	480	245	to	310
	HOTELS																		
	Budget	210	to	270	190	to	255	190	to	255	185	to	250	240	to	320	220	to	280
	Suite Hotel	335	to	405	275	to	375	275	to	375	270	to	370	345	to	420	285	to	380
	4 Star Full Service	355	to	470	290	to	390	290	to	390	285	to	385	365	to	550	315	to	440
	Premium for Luxury	up to		200	up to		180	up to		180	up to		175	up to		305	up to		155
	PARKING																		
	Surface Parking	10	to	25	7	to	23	7	to	23	7	to	23	12	to	28	10	to	21
	Freestanding Parking Garages (above grade)	120	to	200	105	to	145	105	to	145	100	to	140	140	to	210	115	to	145
	Underground Parking Garages	120	to	230	145	to	210	145	to	210	140	to	205	195	to	270	210	to	275
	Underground Parking Garages - Premium for Unusual Circumstances	up to		205	up to		140	up to		140	up to		135	up to		220	up to		205
	INDUSTRIAL FACILITIES																		
	Warehouse & Distribution Facility	115	to	185	105	to	155	105	to	155	100	to	150	95	to	180	120	to	170
	Urban Storage Facility	115	to	160	105	to	150	105	to	150	100	to	145	95	to	125	105	to	130

Public sector (cost per square foot)

BUILDING TYPE		Vancouver		Calgary		Edmonton		Winnipeg		GTA		Ottawa/Gatineau		Montreal		Halifax		St. John's	
		Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
INSTITUTIONAL	EDUCATIONAL BUILDINGS																		
	Elementary School	350	to 420	280	to 365	280	to 365	275	to 360	370	to 455	350	to 430	330	to 450	285	to 360	300	to 440
	Secondary School	370	to 440	310	to 395	310	to 395	305	to 390	400	to 480	370	to 450	350	to 475	330	to 385	320	to 460
	Universities & Colleges - Teaching and Lecture Hall Building	620	to 950	525	to 770	525	to 770	520	to 765	850	to 1,100	650	to 975	540	to 800	540	to 650	525	to 730
	Universities & Colleges - Laboratories (Level 1 and 2)	850	to 1,200	665	to 950	665	to 950	660	to 945	1,050	to 1,400	900	to 1,200	650	to 900	650	to 850	660	to 955
	Universities & Colleges - Student Residence	350	to 420	280	to 360	280	to 360	275	to 355	350	to 450	350	to 450	250	to 350	275	to 350	260	to 340
	HEALTH CARE																		
	General Hospital/Acute Care	825	to 1,300	640	to 995	640	to 995	635	to 990	950	to 1,500	920	to 1,400	650	to 1,000	650	to 1,000	670	to 950
	Medical Clinic/Treatment Centre	405	to 570	335	to 585	335	to 585	330	to 580	410	to 580	390	to 560	340	to 510	350	to 500	350	to 515
CIVIC	TRANSPORTATION BUILDINGS																		
	Regional Airport Terminal	415	to 520	455	to 570	455	to 570	450	to 565	485	to 580	380	to 480	375	to 470	375	to 465	350	to 485
	International Airport Terminal	795	to 1,030	685	to 935	685	to 935	680	to 930	805	to 1,065	770	to 950	750	to 900	725	to 885	725	to 885
	Bus Terminal/Garage	350	to 450	330	to 385	330	to 385	325	to 380	420	to 700	330	to 415	310	to 375	305	to 395	270	to 365
	GOVERNMENT BUILDINGS																		
	Fire/EMS Station	500	to 850	500	to 645	500	to 645	495	to 640	510	to 735	500	to 650	430	to 500	370	to 425	375	to 455
	Police Station - Local Detachment	530	to 580	390	to 475	390	to 475	385	to 470	550	to 600	520	to 580	480	to 550	400	to 450	400	to 460
	Police Station - Regional Headquarters	460	to 600	415	to 495	415	to 495	410	to 490	485	to 580	450	to 550	440	to 525	350	to 440	340	to 435
	Court House	495	to 680	470	to 650	470	to 650	465	to 645	590	to 755	510	to 680	485	to 645	460	to 520	465	to 505
	Facilities Maintenance Building	400	to 500	285	to 415	285	to 415	280	to 410	500	to 590	450	to 520	315	to 410	275	to 335	280	to 330
	Penitentiary	485	to 645	465	to 585	465	to 585	460	to 580	580	to 700	440	to 570	420	to 540	415	to 575	465	to 575
	Municipal Office (including fit-up)	400	to 520	370	to 415	370	to 415	365	to 410	405	to 540	360	to 450	345	to 430	325	to 375	300	to 365
	Library	430	to 725	390	to 600	390	to 600	385	to 595	460	to 850	450	to 800	385	to 590	400	to 650	370	to 575
	RECREATION/ENTERTAINMENT BUILDINGS																		
	Ice Arena	345	to 465	330	to 420	330	to 420	325	to 415	345	to 435	330	to 430	315	to 400	325	to 375	330	to 385
	Community Aquatic Facility	525	to 915	450	to 600	450	to 600	445	to 595	590	to 915	550	to 750	515	to 675	500	to 550	400	to 550
	Multi-Use Recreational Centre	505	to 900	400	to 540	400	to 540	395	to 535	650	to 1,125	520	to 635	400	to 550	400	to 600	350	to 470
	Performing Arts Building	875	to 1,200	575	to 910	575	to 910	570	to 905	915	to 1,235	595	to 940	495	to 815	475	to 615	470	to 600
	Museum / Gallery	525	to 865	510	to 880	510	to 880	505	to 875	590	to 880	585	to 725	465	to 700	455	to 595	430	to 600

Infrastructure (cost per unit)

	British Columbia			Alberta			Ontario (GTA Region)			Ontario (Ottawa Region)		
	Low		High	Low		High	Low		High	Low		High
LIGHT RAIL TRANSIT												
Guideway - Underground (Tunnel) (per km)	84,520,000	to	200,760,000	74,030,000	to	175,880,000	81,430,000	to	193,640,000	76,910,000	to	182,870,000
Guideway - Underground (Cut and Cover) (per km)	38,520,000	to	372,060,000	33,690,000	to	325,830,000	37,170,000	to	358,630,000	35,090,000	to	338,670,000
Guideway - At Grade (per km)	2,490,000	to	72,400,000	2,150,000	to	28,510,000	2,370,000	to	31,370,000	2,240,000	to	29,650,000
Guideway - Elevated (per km)	3,290,000	to	77,260,000	2,820,000	to	59,150,000	3,080,000	to	65,100,000	2,960,000	to	61,550,000
Stops - At Grade (per unit)	1,310,000	to	6,910,000	1,140,000	to	5,730,000	1,260,000	to	6,310,000	1,180,000	to	5,960,000
Stations - Underground (per unit)	51,210,000	to	240,510,000	44,840,000	to	184,100,000	49,360,000	to	202,630,000	46,670,000	to	191,370,000
Stations - At Grade (per unit)	5,670,000	to	46,400,000	4,960,000	to	39,330,000	5,450,000	to	43,320,000	5,200,000	to	40,870,000
Stations - Elevated (per unit)	28,780,000	to	82,220,000	25,240,000	to	74,810,000	27,700,000	to	82,380,000	26,220,000	to	77,730,000
Operations and Maintenance Facility (per square feet)	225	to	1,705	200	to	1,150	215	to	1,270	210	to	1,205
Systems (per km)	5,890,000	to	76,390,000	5,080,000	to	24,000,000	5,680,000	to	26,390,000	5,320,000	to	24,930,000
HIGHWAYS												
Multi-Lane Highways (per lane km)	2,260,000	to	3,170,000	1,940,000	to	2,830,000	2,170,000	to	4,210,000	2,050,000	to	3,160,000

Note: All building costs include the above grade scope of work only; complete with foundations. To calculate the total construction cost you need to also include the below grade scope of work (see the Parking section of the cost tables).

Here is how the calculation is applied separately for above and below grade:

40-storey office building in Toronto		800,000 square feet above grade		200,000 square feet below grade
Above grade 800,000 square feet x \$440/square foot = \$352 million				
Below grade 200,000 square feet x \$230/square foot = \$46 million				
Total \$398 million				

Frequently asked questions

Q. If I am budgeting a building that has no underground parking area, can I use just the applicable rate for the above grade without adding any underground parking cost?

Yes, the above grade costs include the cost of a slab on grade and associated footings.

Q. In the Parking section, when would the Underground Parking Garages – Premium for Unusual Circumstances apply and what would it include?

Underground parking garage costs can vary significantly depending on their site specifics, location, soil conditions, ground water conditions, shape, and depth. Examples where additional costs may be incurred, include:

- Non-typical foundations due to poor soil stability
- Bath tubbing the underground due to groundwater or municipal regulations
- Soil conditions that increase excavation costs and/or shoring costs
- Unusually constricted site conditions (e.g., proximity to adjacent structures)
- Footprint shapes that increase the ratio of exterior wall area relative to floor area
- Non-typical floor heights and/or specifications
- Remediation of contaminated soils or groundwater

Q. Why does the cost of the same asset type differ so much between cities in some cases?

The Cost Guide numbers reflect the probable costs of the identified type of building as it would typically be defined in that market. Not only do the costs of labour and materials differ between markets, the standards/specification of each building type may differ as well.

For example, the specification of a mid-quality condominium in Vancouver will typically be a higher specification than what is provided for a mid-quality condominium in Halifax. In addition, there are climatic & code variances between cities. For instance, the HVAC system required in Calgary will be different than the HVAC system required in Vancouver.

These differences are also reflected in the numbers. The difference in the Cost Guide numbers is a composite of both the differences in labour and material cost and the differences in design.

Q. In the Condominiums/Apartments section, what is the Premium for High Quality item, what does it include, and when does it apply?

The Cost Guide numbers are representative of the level of finishes and design that would be considered “typical” of a mid-quality condominium/apartment in that city. If aspects of your building’s design are beyond what would be considered typical,

you should be adding this premium. The delineation of what is and is not premium differs from market to market, but could include such things as: premium quality floor finishes, kitchen cabinetry, appliances, luxury building amenities, upgrades to exterior enclosure, etc.

Q. What is the methodology used to determine the Cost Guide numbers?

The Cost Guide numbers are determined through a combination of our historical data for each asset class in each city, overlaid with expert opinion and knowledge provided by the senior managers in each of our offices across the country.

Q. Can Cost Guide numbers be used for insurance purposes and estimating replacement costs?

A replacement cost estimate should be prepared by a qualified cost professional and with respect to your unique asset, especially when it comes to unique properties with a greater level of design. Relying on generic estimates, untailored to your needs, can leave you exposed.

Q. I want to measure cost escalation from year to year. Will comparing the current Cost Guide numbers to previous Cost Guide numbers provide me a useful measure of annual cost escalation?

We do not recommend using the Cost Guide to measure cost escalation. It is meant to be used as a tool for clients who are considering an appropriate conceptual budget for a building type in a specific market at a particular point in time. Its methodology thus allows all variables (design, costs, etc.) to vary from year to year and location to location to constantly reflect what is 'typical' of each market each year. What is typical of one city may not be typical of another city. Similarly, what is typical of a building type today, may not have been typical of the same building type 5 years ago.

To provide an accurate measure of cost escalation – and isolate only the changes due to escalation of costs – all other variables would need to remain static.

Q. Can I apply the zoning floor areas calculated by my Architect to the unit rates in the Cost Guide?

Using zoning floor areas to calculate costs is a common and potentially costly error. The Cost Guide rates are calculated using the Canadian Institute of Quantity Surveyors' definition of floor area, whereas zoning floor area definitions differ from municipality to municipality and often exclude significant areas of the building from the calculation. Thus, using the floor area measured per zoning definitions can result in underestimating costs by as much as 12%. If you do not have floor plans for your building when preparing your budget, you will need to "gross up" the zoning floor areas to account

for the variance in definition. If you do have floor plans for your building, we strongly recommend having the floor areas properly measured in accordance with the Canadian Institute of Quantity Surveyors', Method of Measurement of Construction Works.

Q. Previous Cost Guides (pre-2020) included the Canadian Cost Index, which compared the relative costs between cities. Why is this no longer included?

We no longer produce this index for a couple reasons. First, no single index number is universally applicable to all building types. In a single city, some building types may be a premium versus the benchmark city, while other building types are a discount versus the benchmark city. For example, the cost of a 30-storey residential tower could be higher than the benchmark city, while the cost of a wood frame townhouse project is less expensive.

Second, in many cases the design of the building in the indexed city will be significantly different than that of the benchmark city. Consider the scenario of indexing the cost of a building in Iqaluit to that of Toronto. A building built in Iqaluit will have substantive differences in design compared to a similar building built in Toronto (due to environmental considerations, site, code, local design standards, etc.). Although this is an extreme example for the purpose of illustrating a point, the same issue applies to some degree when indexing construction costs of any city to those of another.

For these reasons, we recommend that you consult a professional who can consider the complexities on a case-by-case basis, rather than relying upon an index.



Notes on correct use of data

Guide only

The construction cost data contained herein are of a general nature only and subject to confirmation with respect to specific circumstances.

The unit rates for the building types described are an average range exclusively for that particular type of building. The unit rates assume that a level, open site exists with no restrictions from adjoining properties. It is assumed that stable soil conditions prevail. Average-quality finishes (unless otherwise stated), both to the exterior and interior are also assumed.

Judgement factors must be applied within the average range to allow for:

- Quality
- Schedule
- Extent of site works
- Location
- Site restrictions
- Design method
- Type of contract
- Building shape, size and height
- Market conditions
- User requirements
- Topography and soil conditions
- Procurement advantage of developer/contractor

Correct measurement & use of square foot

In preparing a “cost per square foot” guide, we must outline how we define the area used as the denominator to calculate this value. We have adopted the Canadian Institute of Quantity Surveyors’ definition which dictates:

1. Measure each floor to the outer face of the external walls.
2. No deductions for opening at stairs, elevators or vertical ducts are made.
3. A deduction is made for a non-service vertical protrusion, e.g., atrium space.
4. Mezzanine floors are generally included.
5. Balconies are excluded; enclosed solariums in residential condominiums are included.
6. Sloping and stepped floors (auditoriums/movie theatres) are measured flat.
7. External covered walkways are excluded.

If the building includes underground parking areas, these costs need to be added based on the “Underground Parking Garage” rate in the guide.

Hard construction costs only

The unit costs outlined herein cover construction costs only. In all commercial developments the project budget must also include development or “soft” costs. These would include some or all the following:

- Land and related costs
- Legal fees

- Site services outside the property
- Tenant incentives
- Soil and environmental tests
- Contingencies
- Architectural and engineering fees
- Special design consultants
- Interest charges and lenders’ fees
- Permits and development charges
- Land surveys
- Government registered programs
- Special equipment and furnishings
- Marketing and advertising
- Purchaser upgrades
- Property taxes
- Other municipal fees
- Insurance and bond costs
- Management costs
- Levies
- Appraisals
- Broker commissions
- Developer profit
- Rezoning costs

Federal & provincial sales tax

The unit costs provided exclude Value Added Taxes (GST, HST and QST), but include Provincial Sales Tax (PST) where applicable at the time of the release of this guide.

Appendix

Building type descriptions



PRIVATE SECTOR

Residential

General: All costs exclude site development and premiums associated with unique architecture.

Condominiums and apartments

- Assumed cast-in-place concrete structure unless otherwise indicated.
- The premium for high-quality can be applied to any of the condominium/apartment categories.
- Parking is excluded from all unit rates and should be added accordingly.

Wood-framed

- The floor area of the unfinished basement and garage should be excluded from the area used with the unit rate provided.
- Parking is excluded from all unit rates and should be added accordingly.

Seniors housing

- Costs can fluctuate depending on the level of care, services provided to the residents, and whether the facility is for-profit or community-based.



PRIVATE SECTOR

Commercial

General: All costs exclude site development and premiums associated with unique architecture.

Office buildings

- Assumed base building construction only, including mechanical and electrical services, washrooms, and finishing of ground floor entrance lobby.
- Tenant partitioning and finishes (with the exception of ceiling and column finishes) are excluded. The cost of finishing this space can fluctuate depending on the density of partitioning and the quality of the finishes.
- Costs assume standalone buildings and are not representative of a component within a mixed-use building.
- Parking is excluded from all unit rates and should be added accordingly.

Retail

- Assumed single-storey buildings with the exception of enclosed malls.
- The CRU space is considered shell.
- Public spaces within an enclosed mall are finished.
- Costs assume standalone buildings and are not

representative of a component within a mixed-use building.

Hotels

- FF&E allowances are excluded, as each operator has its own definition, and the costs can vary significantly.
- Budget hotel assumes no restaurant or bar facilities and minimal meeting/conference areas.
- Suite hotels assumed to include a kitchenette.
- Four-star full-service hotels include dining and conference facilities and special-use lounges. Premiums for luxury should only be applied to the four-star full-service hotel.

Parking

- On-grade parking assumes an asphalt paved surface lot, including necessary curbs, line painting, storm servicing, and pole lighting.
- Freestanding (above grade) parking assumes an open-air structure.

- Underground parking assumes that there are no extraordinary conditions or unusual circumstances.
- Premium for unusual circumstances could be applied to account for issues such as but not limited to poor soil conditions, excessive groundwater, environmental contamination, restricted site conditions, small or non-standard footprint shape, and non-typical floor to floor heights.
- The “efficiency” of garages (parking area/stall) is also an important cost variable.
- All parking unit rates should be applied to the area of parking required and not the associated building area.

Industrial

- Warehouse space is based on heated shell space, excluding mezzanine areas. A finished office component is included.
- Urban storage facilities are based on multi-level facilities which have site constraints.

PUBLIC SECTOR

Civic

General: All costs exclude site development and premiums associated with unique architecture.

Transportation buildings

- Regional airport terminals are typically single-storey facilities that have smaller gate and circulation capacity for local domestic flights and minimal amenities.
- International airport terminals are multilevel facilities with extensive amenity space for restaurants, retail stores, and have larger circulation space and gate capacity. Also included are spaces for customs and immigration control. Costs for any parking, airside infrastructure, or equipment are excluded.
- Bus garages are slab-on-grade, single-storey, long-span steel structures including vehicle maintenance facilities and a small administration area. FF&E including vehicle lifts are excluded.
- All buildings are based on suburban facilities with no site constraints. Any associated site work or parking is excluded from the unit costs.
- Costs assume a design standard equivalent to LEED Silver. Premiums associated with actual certification or Gold/Platinum design are excluded.

Government buildings

- Fire/EMS Stations exclude any costs associated with training buildings.
- Local Police Detachments include offices and facilities for police and civilian members with minimal interview rooms and holding cells.
- Regional Police Headquarters include the same scope as a Local Police Detachment, plus additional interview rooms, holding cells, training space, and administration.
- Courthouses include judicial chambers, administrative offices, holding cells, and courtrooms.
- Facilities Maintenance Building costs are based on the main facility only, including maintenance, storage, and administrative areas. Any outbuildings would be an additional cost.
- The range of costs for penitentiaries vary depending on the level of security and size of the facility.
- Municipal Offices include administrative space for all municipal departments, meeting and conference rooms, council chambers, cafeteria, daycare facility, and significant atrium space.

- Library costs vary depending on size and whether the building is standalone or part of a multi-use facility

Recreation / Entertainment Buildings

- Ice arenas include single to four-pad facilities with spectator seating; unit costs are based on steel structures.
- Community aquatic facilities include single or multiple pools, minimal spectator seating, change room facilities, and fitness areas. Unit costs are based on conventionally framed structures for most of the building.
- Multi-use recreation centres could include any combination of fitness, gymnasium, daycare, community room, and administrative space. Facilities with arena, pool, and multi-purpose areas should be based on the costs for each component combined.
- Performing arts buildings unit costs vary depending on the size and function of the facility. Acoustical treatment, theatre lighting, stage, and seating requirements would all impact the cost.
- Museum and gallery costs vary depending on the purpose of the space; humidity and temperature control, redundant systems, and fire prevention all impact the costs.

PUBLIC SECTOR

Institutional & Infrastructure

General: All costs exclude site development and premiums associated with unique architecture.

Institutional

- Educational buildings exclude allowances for FF&E.
- Health care buildings: With more than 40 subcategories of space types available in hospitals, the mix of costs fluctuate depending on the type of facility being constructed, the mix of beds, clinics, and surgical suites, as well as the building configuration. Parking and FF&E are excluded.

Infrastructure

Light Rail

- Assumes average project conditions and does not account for unusual circumstances such as but not limited to poor soil conditions, excessive groundwater, or environmental contamination.
- Does not include structures such as bridges and interchanges
- Does not include utility works
- Based on direct construction costs only
- Stops - at Grade – Assumes an average size of 5,000 square feet
- Stations - Underground – Assumes an average size of 100,000 square feet
- Stations - at Grade – Assumes an average size of 30,000 square feet
- Stations - Elevated – Assumes an average size of 30,000 square feet

- Operations and Maintenance Facility – Inclusive of storages, light maintenance facilities and heavy maintenance facilities

Highways

- Rates allow for underground storm, sewer, lighting, earthworks, curbs, and asphalt roadways. Items such as berms, retaining walls, noise barrier fences, entrance features, storm ponds, landscaping, and external services are excluded.
- Assumes average project conditions and does not account for unusual circumstances such as but not limited to poor soil conditions, excessive groundwater, or environmental contamination.
- Based on direct construction costs only.
- Does not include structures such as bridges and interchanges.
- Through-city highways are excluded.



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