

Construction Cost Guide 2013

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As the most trusted and respected name in real estate and development advisory services, Altus Group offers a complete and focused platform to better serve a broad client base. Altus leads the industry in providing professional real estate advisory services, data solutions and intelligence about an organization's assets, generating a wealth of knowledge and insight.

Cost Consulting & Project Management

As members of your project team, we offer unparalleled expertise in construction cost consulting and development project management to help you deliver your project on time and on budget. We do this by employing a structured cost budgeting, cost monitoring and alternate planning process. This means an enhanced return on investment and better management of cost risk for our clients.

Altus has earned an enviable reputation within the construction and real estate industries because we have invested in understanding those industries like no other consulting group. With local insight, we are globally equipped to drive forward client projects.

OUR ADVANTAGE IS ROOTED IN SUPERIOR MARKET INTELLIGENCE, SPECIALIZED EXPERTISE AND OVER 50 YEARS OF DEMONSTRATED EXPERIENCE. WE MAKE OUR ADVANTAGE YOUR ADVANTAGE.

We provide clients solutions through the following services:

- Cost Monitoring
- Cost Planning and Control
- Public Private Partnership (P3)
- Infrastructure
- Project Controls
- Receiver/Management Services
- Development Management
- Property Condition Assessments and Reserve Funds
- Claims, Legal Support and Scheduling
- Life Cycle Costing
- Right of Way/ Corridor Planning



Notes On Correct Use Of Cost Data

1. Guide Only

The construction cost data contained herein is 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 only 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.

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

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

2. Construction Cost Escalation

An “escalation allowance” is a contingency (usually a percentage) added to the estimated construction estimate to allow for inflation in labour and material costs between the date of the estimate and the contract award. As the project moves closer to the onsite start date, the contingency reduces, reflecting the reduced risk of escalating costs.

As we prepared this 2013 Guide, we observed a softening in cost escalation generally, with zero escalation in certain areas. There are a number of dynamic factors at play in the current market – including the U.S. economic recovery – that will invariably impact construction costs in Canada. Accordingly, it is even more imperative to have a detailed construction estimate prepared in order to obtain an accurate projection of your project construction costs.

3. Construction Costs Only

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

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

4. Correct Measurement & Use Of Square Foot

In preparing a “cost per square foot” guide, we must be clear on how we define the area used as the denominator to calculate this value. We have adapted 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 openings 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; and,
7. Exclude all external covered walkways.

The values calculated by building types that usually have underground parking (condominiums, offices and hotels) allow for an underground parking component of 30%. Rates for buildings where parking is not common (schools, hospitals and retail) will need parking costs added; based on the “parking garage rate” in the guide.

5. Federal & Provincial Sales Taxes

The unit costs provided exclude Goods & Services Tax (GST) and Harmonized Sales Tax (HST), but include Provincial Sales Tax where applicable at the time of the release of this guide. For further information please contact our offices directly at cost@altusgroup.com.

Cost Data Parameters

Measurement & Application Of Cost Per Square Foot (\$/Sq. Ft.)

Floor area above-grade is traditionally known as Gross Liveable Area (GLA), while the combined above and below-grade floor area is traditionally referred to as Gross Floor Area (GFA). To simplify calculation estimates, unit costs should be applied only to Gross Liveable Area (GLA) – under the assumption that GLA averages 70% of GFA. Unit costs should be applied to the 70,000-square-foot GLA as follows:

Applied Example: A 7-storey office (100,000 sq. ft.) building in Toronto:

Area of Building	Below Grade	Above Grade	Total (GFA)	Percentage
	30,000 sq. ft.	70,000 sq. ft.	100,000 sq. ft.	30%
				70%
				100%

Approximate cost is 70,000 sq. ft. x \$180 - \$240 = \$12,600,000 - \$16,800,000

Notes: 1. All costs are in Q1 2013 dollars. 2. Unit costs cover construction costs only – all development or “soft” costs are excluded. 3. Rates are based on average standards and should only serve as basic guidelines. There is no substitute for a detailed estimate. 4. Unit prices exclude GST/HST. 5. Please refer to the Altus Group Cost Consulting Canadian Centre Index for individual city averages.

Altus Group Cost Consulting Canadian Centre Index (Provincial)

British Columbia (Indexed to Vancouver)

1. Victoria 108
- 2. Vancouver 100**
3. Whistler 120
4. Southern Interior 95
5. Northern Interior 115

Western/Prairies (Indexed to Calgary)

- 1. Calgary 100**
2. Edmonton 98
3. Regina/Saskatoon 105
4. Winnipeg 108

Ontario (Indexed to GTA)

1. Southwestern Ontario:
 - Windsor 110
 - London 98
 - Tri-City (Cambridge, Kitchener, Waterloo) 99
2. Hamilton and Surrounding Areas 104
3. Niagara Peninsula 104

4. Barrie 105
5. Toronto:
 - Downtown Core 114
 - GTA 100**
6. Eastern (Kingston, Cornwall) 112
7. Ottawa 98
8. North (Sudbury, Thunder Bay, Trans Canada Corridor) 122

Quebec (Indexed to Montreal)

- 1. Montreal 100**
2. Quebec City 100

Maritimes (Indexed to Halifax)

- 1. Halifax 100**
2. St. John’s, Newfoundland 108

NWT/Nunavut (Indexed to GTA)

1. Yellowknife 190
2. Iqaluit 240
3. Remote Communities 275

BUILDING TYPE		\$/Sq. Ft.	VANCOUVER		CALGARY		EDMONTON		TORONTO (GTA)	
OFFICE BUILDINGS	Under 5 Storeys		180	- 210	175	- 205	170	- 200	165	- 220
	5 - 10 Storeys		195	- 250	190	- 230	185	- 225	180	- 240
	10 - 20 Storeys		225	- 280	215	- 250	205	- 245	190	- 270
	20 - 30 Storeys		270	- 350	235	- 290	230	- 285	240	- 300
	Over 30 Storeys		n/a	- n/a	270	- 350	265	- 345	270	- 370
SHOPPING CENTRES/RETAIL	Strip Plaza		85	- 115	100	- 145	110	- 140	90	- 145
	Premium Outlet		135	- 160	140	- 165	140	- 165	110	- 175
	Enclosed Mall		190	- 250	190	- 285	185	- 280	180	- 230
	Anchor/Department Store		150	- 200	150	- 200	145	- 195	125	- 175
	Supermarket		150	- 180	150	- 200	145	- 195	115	- 150
	Discount Store		100	- 115	100	- 135	100	- 135	85	- 120
SCHOOLS & COLLEGES	Elementary		180	- 200	155	- 205	155	- 205	155	- 175
	High School		200	- 250	190	- 265	190	- 265	165	- 195
	Technical/Vocational School		250	- 300	240	- 315	240	- 315	215	- 290
	Universities & Colleges		280	- 350	280	- 395	280	- 395	325	- 425
HOSPITALS	Chronic Care		320	- 420	340	- 445	335	- 445	345	- 450
	Active Treatment/Acute Care		450	- 600	515	- 650	515	- 650	500	- 685
	Laboratories (Level 1 & 2)		450	- 550	425	- 595	425	- 595	435	- 580
SENIORS' HOUSING	Congregate Care/Long-Term Care		220	- 300	210	- 290	195	- 280	200	- 260
	Assisted Living		185	- 240	185	- 250	175	- 245	160	- 200
HOTELS	Budget		135	- 190	145	- 190	145	- 190	130	- 165
	Four-Star Full Service		190	- 280	205	- 265	200	- 265	210	- 275
	Luxury		300	- 450	290	- 395	285	- 385	290	- 400
PARKING GARAGES	Free Standing (Above Grade)		60	- 80	70	- 85	65	- 75	50	- 85
	Underground		75	- 90	90	- 130	90	- 125	90	- 140
RESIDENTIAL CONDOMINIUMS & APARTMENTS	Basic Quality		170	- 210	170	- 230	165	- 220	170	- 195
	Medium Quality		195	- 240	225	- 265	220	- 255	195	- 245
	High Quality		240	- 290	255	- 345	250	- 330	245	- 450
	Point Towers - 50 to 80 Storeys (Medium Quality)		260	- 350	n/a	- n/a	n/a	- n/a	260	- 330
	Point Towers - 50 to 80 Storeys (High Quality)		330	- 400	n/a	- n/a	n/a	- n/a	310	- 500
TOWNHOUSES	Row (Medium Quality)		90	- 110	105	- 140	105	- 135	90	- 120
	Stack (Medium Quality)		110	- 135	125	- 160	125	- 155	120	- 155
	Walk-Up Timber Frame (Basic)		130	- 150	105	- 140	105	- 135	80	- 130
	Walk-Up Timber Frame (Medium)		145	- 170	135	- 160	135	- 155	105	- 145
	Walk-Up Timber Frame (High)		180	- 240	155	- 205	155	- 200	150	- 215
HOUSES	Speculative (Basic Quality)		100	- 165	110	- 130	105	- 125	80	- 110
	Speculative (Medium Quality)		165	- 225	120	- 170	115	- 160	95	- 190
	Speculative (High Quality)		225	- 350	205	- 310	195	- 300	225	- 375
	Custom Built		400	- 1,000	320	- 800	305	- 800	300	- 1,000
LIGHT ENGINEERING FACTORIES & WAREHOUSES (LIGHT INDUSTRIAL)	28' Clear Height (20,000 - 50,000 Sq.Ft.)		80	- 100	80	- 100	80	- 100	70	- 95
	28' Clear Height (50,000 - 100,000 Sq.Ft.)		70	- 95	75	- 95	75	- 95	60	- 80
	28' Clear Height (100,000 - 200,000 Sq.Ft.)		60	- 90	70	- 85	70	- 85	50	- 70
SITE SERVICING (Includes Underground Storm, Sewer, Water, Hydro, Earthworks, Curbs, Asphalt Roadways & Sidewalks)	Local Roads - 8m Road Width (Per Metre)		2,500	- 3,200	2,600	- 3,200	2,600	- 3,200	2,800	- 3,500
	Arterial Roads - 9m Road Width (Per Metre)		2,700	- 3,800	2,800	- 3,800	2,800	- 3,800	3,000	- 4,100
	Arterial Roads - 12m Road Width (Per Metre)		3,500	- 4,100	3,500	- 4,200	3,500	- 4,200	3,800	- 4,500
	Private Roads - 6m Road Width (Per Metre)		2,100	- 2,500	2,100	- 2,700	2,100	- 2,700	2,300	- 2,900
	Residential Row Townhouses (Per Unit)		17,500	- 25,000	18,500	- 26,000	18,500	- 26,000	19,700	- 27,800
	Industrial (Per Acre)		115,000	- 165,000	116,000	- 178,000	116,000	- 178,000	128,000	- 193,000
	Commercial (Per Acre)		150,000	- 225,000	155,000	- 260,000	155,000	- 260,000	173,000	- 284,000

BUILDING TYPE		\$/Sq. Ft.	OTTAWA		MONTREAL		HALIFAX		ST. JOHN'S					
OFFICE BUILDINGS	Under 5 Storeys		170	-	210	150	-	195	145	-	180	160	-	200
	5 - 10 Storeys		180	-	225	155	-	220	165	-	210	180	-	220
	10 - 20 Storeys		190	-	255	170	-	265	180	-	220	200	-	250
	20 - 30 Storeys		210	-	300	210	-	290	190	-	230	n/a	-	n/a
	Over 30 Storeys		n/a	-	n/a	245	-	360	n/a	-	n/a	n/a	-	n/a
SHOPPING CENTRES/RETAIL	Strip Plaza		95	-	155	80	-	155	95	-	120	105	-	130
	Premium Outlet		130	-	160	n/a	-	n/a	n/a	-	n/a	n/a	-	n/a
	Enclosed Mall		175	-	215	165	-	210	165	-	205	170	-	225
	Anchor/Department Store		135	-	165	110	-	165	125	-	150	140	-	165
	Supermarket		115	-	155	105	-	135	115	-	160	120	-	165
	Discount Store		95	-	120	80	-	115	95	-	115	105	-	130
SCHOOLS & COLLEGES	Elementary		155	-	195	150	-	180	230	-	270	250	-	290
	High School		185	-	225	160	-	185	250	-	280	270	-	310
	Technical/Vocational School		235	-	285	210	-	280	210	-	270	225	-	300
	Universities & Colleges		275	-	345	285	-	360	250	-	300	270	-	325
HOSPITALS	Chronic Care		350	-	455	330	-	420	290	-	370	320	-	400
	Active Treatment/Acute Care		485	-	675	480	-	685	410	-	540	450	-	590
	Laboratories (Level 1 & 2)		405	-	560	420	-	525	350	-	460	380	-	500
SENIORS' HOUSING	Congregate Care/Long-Term Care		195	-	280	165	-	280	160	-	240	170	-	260
	Assisted Living		155	-	200	130	-	195	140	-	190	150	-	210
HOTELS	Budget		135	-	190	135	-	190	160	-	200	170	-	210
	Four-Star Full Service		195	-	260	190	-	260	190	-	225	220	-	260
	Luxury		260	-	400	270	-	435	225	-	275	265	-	335
PARKING GARAGES	Free Standing (Above Grade)		55	-	85	45	-	75	90	-	105	95	-	120
	Underground		95	-	150	65	-	115	100	-	120	110	-	135
RESIDENTIAL CONDOMINIUMS & APARTMENTS	Basic Quality		170	-	185	150	-	175	125	-	150	140	-	165
	Medium Quality		190	-	215	175	-	210	145	-	175	165	-	185
	High Quality		215	-	275	210	-	330	180	-	240	200	-	260
	Point Towers - 50 to 80 Storeys (Medium Quality)		n/a	-	n/a	n/a	-	n/a	n/a	-	n/a	n/a	-	n/a
	Point Towers - 50 to 80 Storeys (High Quality)		n/a	-	n/a	n/a	-	n/a	n/a	-	n/a	n/a	-	n/a
TOWNHOUSES	Row (Medium Quality)		90	-	125	95	-	125	85	-	120	110	-	135
	Stack (Medium Quality)		115	-	180	110	-	150	105	-	150	125	-	165
	Walk-Up Timber Frame (Basic)		80	-	130	75	-	125	75	-	120	85	-	130
	Walk-Up Timber Frame (Medium)		105	-	150	100	-	150	90	-	140	130	-	150
	Walk-Up Timber Frame (High)		150	-	220	145	-	200	125	-	180	160	-	210
HOUSES	Speculative (Basic Quality)		80	-	115	85	-	115	80	-	120	90	-	135
	Speculative (Medium Quality)		95	-	165	125	-	175	95	-	150	140	-	175
	Speculative (High Quality)		205	-	375	200	-	325	160	-	250	175	-	260
	Custom Built		330	-	870	315	-	655	n/a	-	n/a	n/a	-	n/a
LIGHT ENGINEERING FACTORIES & WAREHOUSES (LIGHT INDUSTRIAL)	28' Clear Height (20,000 - 50,000 Sq.Ft.)		80	-	105	70	-	100	90	-	110	100	-	120
	28' Clear Height (50,000 - 100,000 Sq.Ft.)		75	-	90	55	-	90	n/a	-	n/a	n/a	-	n/a
	28' Clear Height (100,000 - 200,000 Sq.Ft.)		65	-	80	50	-	75	n/a	-	n/a	n/a	-	n/a
SITE SERVICING (Includes Underground Storm, Sewer, Water, Hydro, Earthworks, Curbs, Asphalt Roadways & Sidewalks)	Local Roads - 8m Road Width (Per Metre)		2,800	-	3,600	2,700	-	3,400	2,600	-	3,300	2,800	-	3,500
	Arterial Roads - 9m Road Width (Per Metre)		3,000	-	4,200	2,900	-	4,100	2,800	-	3,600	2,900	-	4,000
	Arterial Roads - 12m Road Width (Per Metre)		3,900	-	4,600	3,700	-	4,500	3,700	-	4,300	3,900	-	4,600
	Private Roads - 6m Road Width (Per Metre)		2,300	-	2,900	2,200	-	2,800	2,200	-	2,600	2,300	-	2,800
	Residential Row Townhouses (Per Unit)		21,000	-	28,400	19,100	-	27,100	18,000	-	25,000	20,000	-	27,500
	Industrial (Per Acre)		131,000	-	194,000	123,000	-	185,000	115,000	-	180,000	125,000	-	200,000
	Commercial (Per Acre)		179,000	-	289,000	165,000	-	271,000	160,000	-	250,000	175,000	-	275,000

Brief Description Of Building Types

1. Office Buildings

The costs given are for speculative office buildings. Basic mechanical and electrical services, washrooms, and finishing of ground floor entrance lobby and elevator lobbies to upper floors are included. The cost of tenant partitioning and finishes, with the exception of ceiling and column finishes, are excluded. The cost of finishing this space can fluctuate widely between \$50 – \$100/sq.ft. depending on the density of partitioning and the quality of finishes.

2. Shopping Centres/Retail

The cost of providing parking facilities (traditionally grade-level parking) is excluded from the unit cost provided. The CRU space is considered shell. The public space is finished.

3. Schools & Colleges

The costs given exclude any allowance for fixtures, furnishings and equipment (FF&E), and for building and site supplementary costs.

4. Hospitals

With more than 40 subcategories of space types available in hospitals, the mix of costs can fluctuate significantly depending on the type of facility being constructed, the mix of beds to surgeries and building configuration. Parking is excluded.

5. Seniors' Housing

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

6. Hotels

The costs may exclude any allowance for FF&E, but each operator has its own definition. The cost for a budget hotel assumes no restaurant or bar facilities and minimal meeting/conference areas. The costs of four-star and luxury full-service hotels include dining and conference facilities, spa services and special-use lounges.

7. Parking Garages

The costs for below-grade parking garages assume that temporary support to the excavated sides of the proposed garage is required, and that there are no extraordinary conditions (water, contaminated soil, close proximity to underground systems, etc.). For above-grade garages, the area of the roof should be excluded from the floor area calculations, notwithstanding that this may be usable area. The "efficiency" of garages (space/car) is also a useful cost guideline.

8. Residential Condominiums & Apartments

The costs provided are for high-rise residential. The square-foot costs of condominiums vary significantly depending on the unit size, quality of finishes, complexity of design, location and services provided within the building.

9. Townhouses

The floor area of the basement and garage should be excluded from the calculation of the applicable floor area to be used with the unit rate provided.

10. Houses

As with townhouses, the area of the basement and garage should be excluded. Prices vary significantly depending on the number and type of units constructed in the development, as well as the quality of the project.

11. Light Engineering Factories & Warehouses (Light Industrial)

The costs given assume that the façade is finished on three sides with architectural block and one side with facebrick. The warehouse space is "shell", but heated. Mezzanine area excluded. A finished office component comprising approximately 15% of the area is included.

12. Site Servicing

The rates for residential site servicing are based on costs per centre line of road and allow for underground storm, sewer, water and hydro services, earthworks, curbs, asphalt roadways and sidewalks. Items such as berms, retaining walls, noise barrier fences, entrance features, storm ponds, landscaping and external services are excluded. The higher end of the specified range should be used for municipalities, which require crusher run limestone in lieu of granular materials for the base road construction and/or where curb or road sub drains are required. Arterial road costs may be partially recoverable from the local municipality or region. The rates for townhouse servicing are provided on a per unit basis. The rates for industrial and commercial site servicing are provided on a per acre basis.

Altus Group leads the global real estate industry in offering professional real estate advisory services, data solutions and intelligence about an organization's assets, generating a wealth of knowledge and insight. With a staff of over 1,700, Altus has a network of over 50 offices in a number of countries worldwide, including Canada, the United Kingdom, the United States, Australia and China. We operate five interrelated Business Units, bringing years of experience and a broad range of expertise together into one comprehensive platform: *Research, Valuation & Advisory; Cost Consulting & Project Management; Realty Tax Consulting; Geomatics*, and *ARGUS Software*. Altus' clients include banks, financial institutions, governments, pension funds, asset and fund managers, developers and landlords and companies engaged in the oil and gas industry.

Other Services Include:

Property Tax

- Assessment Management
- In-House Tax Professionals
- Tax Due Diligence
- Tax Management and Budgeting
- Tax Payment Processing

Research, Valuation & Advisory

- Altus InSite Market Data
- Asset Strategy & Portfolio Benchmarking
- Due Diligence
- Economic Consulting
- Expert Services
- Expropriation/Right of Way
- Marketing Research
- Public Sector Services

Geomatics

- Oil & gas related surveys
- Land settlement and cadastral surveys
- Construction surveys
- 3D laser scanning and mapping
- GPS and LIDAR

ARGUS Software

- Asset and portfolio management
- Asset valuation
- Appraisal management
- Budgeting, forecasting
- Leasing management



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Please contact: cost@altusgroup.com or (416) 641-9500 with any questions or comments.